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#### Via Electronic Delivery

April 28, 2022

Michael A. Zeolla U.S. EPA—Region 2 290 Broadway, 19th Floor New York, New York 10007

**Subject:** Semi-Annual Groundwater Sampling Report (1H-2022)

D'Imperio Property Site, Hamilton Township, Atlantic County, New Jersey

Dear Mr. Zeolla:

Enclosed please find the *Semi-Annual (1H-2022) Groundwater Sampling Report* for ongoing remedial activities at the D'Imperio Property Site performed in accordance with Administrative Order—Index No. II—CERCLA-20117. Groundwater sampling was performed March 7 - 11, 2022 pursuant to the *Long-Term Groundwater Monitoring Plan (LTGMP-Rev-3A)* and laboratory analyses with the *LTGMP* and associated *Quality Assurance Project Plan (2020)*.

If you have questions regarding the current data, please contact me at (865) 691-5052.

Best regards, de maximis, inc.

Robert L. Darwin Project Coordinator

RLD/jlr

**Enclosures** 

cc: D'Imperio Property Site Group (via Electronic Delivery)

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 $https://demaximisinc.sharepoint.com/sites/Projects2/Shared\ Documents/Active/3082-D-Imperio/2022/Groundwater\ Reporting/1H22/Transmittal.docx$ 

# Semi-Annual (1H-2022) Groundwater Sampling Data Report

D'Imperio Property Site Hamilton Township Atlantic County, New Jersey

> Submitted to: USEPA—Region 2 New York, New York

Prepared for:
D'Imperio Property Site Group
c/o de maximis, inc.
450 Montbrook Lane
Knoxville, Tennessee 37919

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de maximis, inc.

**April 2022** 

#### 1.0 INTRODUCTION

This Semi-Annual 2022 Groundwater Sampling Report provides documentation of the sampling event performed at the D'Imperio Property Site (Site) located in Hamilton Township, Atlantic County, New Jersey. Groundwater sampling was performed between March 7 – 11, 2022 on behalf of the D'Imperio Property Site Group (Group).

Groundwater sampling and analyses were performed in accordance with the final, approved Long-Term Groundwater Monitoring Plan-Revision3A (LTGMP-Rev3A) dated April 2020, the Quality Assurance Project Plan (QAPP-2020), and the Discharge to Groundwater Permit Equivalent (DGW) issued by the New Jersey Department of Environmental Protection (NJDEP).

As a point of reference, Attachment 1 of this report contains several tables and figures from the *LTGMP-Rev3A*. The individual tables present: 1) details on the monitoring network, 2) identification of wells used in each aquifer for the collection of hydraulic and analytical data, 3) location/depth information for the network of wells, and 4) the specific *Groundwater Performance Standards*. The figures present a Site location map and the well network for each aquifer.

#### 2.0 FIELD METHODS AND ACTIVITIES

Groundwater samples for the semi-annual event were collected from the set of monitoring wells, observation wells and sentinel wells identified and presented in Attachment 1. Brown and Caldwell (BC) collected samples from the designated monitoring wells and Operations & Maintenance, Inc. (O&M Inc.) collected the BR extraction well and force main influent samples on March 11, 2022. In addition, the quarterly (1Q22) effluent sample for testing of 1,4-dioxane was collected on February 9, 2022.

All groundwater sampling was performed using approved techniques described in the QAPP – Unified Federal Policy (QAPP-2020) to the LTGMP-Rev3A. Field Data Sheets from the sampling event are provided in Attachment 2 and include field laboratory forms and calibration records that relate to parameters measured in the field during sampling (e.g., pH, temperature, and dissolved oxygen). Testing for 1,4-dioxane was performed per Method 8270E SIM.

Prior to collection of groundwater samples, hydraulic monitoring of the entire well network was performed. The hydraulic monitoring data collected by O&M Inc. are provided in Attachment 3. Per the *LTGMP-Rev3*, quarterly hydraulic monitoring was performed on March 8, 2022, in conjunction with groundwater sampling.

#### 3.0 ANALYSIS OF SAMPLES

All samples were sent to Eurofins-Lancaster Laboratories (ELL), Inc. in Lancaster, Pennsylvania for analysis. Each sample was analyzed for VOCs listed in the *Groundwater Performance Standards* as identified in Administrative Order—Index No. II—CERCLA-20117 and/or modified by the *LTGMP-Rev3A* via the approved methods and quality assurance/quality control measures detailed in the *QAPP-2020*. In addition, the effluent

D'Imperio Property Site Semi-Annual 1H-22 Groundwater Sampling Data Report April 2022 Page 2

sample was analyzed for 1,4-dioxane. ELL is certified by the State of New Jersey as Lab *D'Imperio Property Site* No. 77011.

#### 4.0 RESULTS AND ANALYSIS

Hydraulic data collected during semi-annual event were used to prepare potentiometric groundwater surface contour maps. The maps are presented in Attachment 4. These maps were prepared by Brown and Caldwell and reflect groundwater elevation data, plume limits, hydraulic draw-down around extraction wells, and capture zones for each hydrogeologic unit at the Site during those time periods.

Analytical results from the semi-annual (1H-2022) groundwater sampling event are summarized in the tables located in Attachment 5 and presented in full in Attachment 6. The effluent sample collected during 1Q22 had a 1,4-dioxane concentration of 3.4 µg/L for Method 8270E SIM. Duplicate samples were collected relative to Quality Assurance/Quality Control (QA/QC) requirements in the *QAPP*. In addition to those QA/QC samples, trip blank and field blank samples were provided to the laboratory for analysis.

Attachment 7 presents the *Data Verification Report* prepared by BC for the analytical results. The report provides evaluation of QA/QC parameters as required by the *QAPP* and discussion of sampling results. Attachment 8 presents the long-term historic trends for Performance Standard TVOCs for each aquifer. Attachment 9 presents the Lower Cohansey Main Plume TVOC trends for individual sentinel, side-gradient and observation wells. Attachment 10 presents the TVOCs trends for key LCDP monitoring wells.

#### 5.0 ACTIVITIES SCHEDULED FOR 2Q22 and 2H22

The following activities are scheduled for 2Q22 and 2H-2022:

- Perform quarterly hydraulic monitoring events in 2Q22, and 2H22.
- Perform the 2H22 semi-annual groundwater-sampling event.
- Prepare and submit the Semi-Annual Groundwater Sampling Report for 2H22.
- Prepare and submit the 2022 Annual Groundwater Report.

D'Imperio Property Site Semi-Annual 1H-2022 Groundwater Sampling Data Report April 2022 Page 3

#### **ATTACHMENTS**

**Attachment 1:** Tables/Figures from the *LTGMP*–*Rev 3A* 

**Attachment 2:** Field Data Sheets for Low-Flow Groundwater Sampling

**Attachment 3:** Hydraulic Monitoring Data

**Attachment 4:** Groundwater Potentiometric Surface/Plume Maps (March 2022)

Bridgeton Aquifer

Upper Cohansey Aquifer

Lower Cohansey Aquifer (Main Plume and LCDP)

LCDP Detailed View

**Attachment 5:** Semi-Annual 2022 Groundwater Sampling Data—Summary Tables

**Attachment 6:** Laboratory Data Analysis Reports

• Sample Data Group (SDG) – 410-72267-1 (1Q22 Effluent 1,4-dioxane)

• Sample Data Group (SDG) – 410-75935-1 (Extraction Well BR-3E)

Sample Data Group (SDG) – 410-75934-1 (Effluent and Influent)

• Sample Data Group (SDG) – 410-75512-1 (Sentinel + BR plume wells)

Sample Data Group (SDG) – 410-75949-1 (BR, UC and LCDP Wells)

**Attachment 7:** Data Verification Report (Semi-Annual Analyses)

**Attachment 8:** Historic Trends of TVOCs for each Aquifer (BR, UC, LC, LCDP)

**Attachment 9:** Lower Cohansey Main Plume TVOCs Trends for Sentinel Wells

**Attachment 10:** LCDP Monitoring Wells Trends (2005 – 2022)

https://demaximisinc.sharepoint.com/sites/Projects2/Shared Documents/Active/3082 - D-Imperio/2022/Groundwater Reporting/1H22/Semi-Annual 1H-2022 Groundwater Sampling Report.docx

#### **ATTACHMENT 1**

### Tables from the Long-Term Groundwater Monitoring Plan – Rev3A

D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report

# TABLE 2-1 GROUNDWATER QUALITY NETWORK AND SAMPLING SCHEDULE $^{(1.)}(5.)$ HISTORY OF PROGRAM D'IMPERIO PROPERTY SITE

	Well T		Monitoring Frequency			
Well ID	2007 LTGMP <sup>(2.)</sup> Prior Designation	Current Designation	2007 LTGMP <sup>(1.)</sup>	2015 - 2019 (2.)	2020 LTGMP-3A	
idgeton Sand (Tbr)						
MW-20-1R	Side-Gradient	Former Plume	Annual	Annual	Once per 2.5 Years	
MW-24-1	Side-Gradient	Side-Gradient	Annual	Semi-Annual	Semi-Annual	
MW-25-1-R	Side-Gradient	Side-Gradient	Annual	None	Once per 5 Years <sup>4</sup>	
MW-28-1	Sentinel	Sentinel	Semi-Annual	Semi-Annual	Semi-Annual	
MW-29-A	Sentinel	Sentinel	Semi-Annual	Annual	Once per 5 Years	
MW-40	Side-Gradient	Side-Gradient	Semi-Annual	Annual	Annual	
MW-41	Plume	Side-Gradient	Semi-Annual	Semi-Annual	Semi-Annual	
MW-42	Side-Gradient	Side-Gradient	Annual	Annual	Once per 2.5 Year	
MW-43	Plume	Plume	Semi-Annual	Annual	Semi-Annual	
MW-44-1	Background	Background	Annual	Annual	Once per 2.5 Years	
MW-52	Plume	Former Plume	Annual	Annual	Annual	
BR-1-E	Extraction	Extraction	None	None	Once per 5 Years	
BR-2-E	Extraction	Extraction	Semi-Annual	Semi-Annual	Once per 2.5 Years	
BR-3-E	Extraction	Extraction	Semi-Annual	Semi-Annual	Semi-Annual	
BR-4-E	Extraction	Extraction	Semi-Annual	Semi-Annual	Once per 2.5 Years	
oper Cohansey Sand (Tu	ico)					
MW-20-3-R	Plume	Former Plume	Annual	Annual	Annual	
MW-23-2	Plume	Former Plume	Annual	Annual	Once per 2.5 Year	
MW-24-2-R	Plume	Plume	Semi-Annual	Annual	Semi-Annual	
MW-28-2	Plume	Plume	Semi-Annual	Annual	Semi-Annual	
MW-29-1	Sentinel	Sentinel - Secondary	Semi-Annual	Semi-Annual	Annual	
MW-34	Sentinel	Sentinel - Secondary	None	Annual	Annual	
MW-35	Sentinel	Sentinel - Secondary	None	Annual	Annual	
MW-37	Side-Gradient	Side-Gradient	Annual	Annual	Annual	
MW-38	Side-Gradient	Side-Gradient	Annual	Annual	Annual	
MW-44-2	Background	Background	Annual	Annual	Once per 2.5 Year	
MW-48	Side-Gradient	Side-Gradient	Annual	Annual	Once per 2.5 Years	
MW-49	Side-Gradient	Sentinel	Annual	Semi-Annual	Semi-Annual	
UC-1-E	Extraction	Extraction	Semi-Annual	Semi-Annual	Once per 2.5 Years	
UC-2-E	Extraction	Extraction	Semi-Annual	Semi-Annual	Once per 2.5 Years	
UC-3-E	Extraction	Extraction	Semi-Annual	Semi-Annual	Once per 2.5 Year	
UC-4-E	Extraction	Extraction	Semi-Annual	Semi-Annual	Annual	
UC-6-E	Extraction	Extraction	Semi-Annual	Semi-Annual	Annual	
wer Cohansey Main Plu						
MW-29-2	Plume	Former Plume	Semi-Annual	Annual	Annual	
MW-31-2	Side-Gradient	Side-Gradient	None	None	Once per 5 Years	
MW-32	Plume	Former Plume	Semi-Annual	Annual	Annual	
MW-33-2	Plume		John Allindar	, and uni	Ailliudi	

Brown AND Caldwell

# TABLE 2-1 GROUNDWATER QUALITY NETWORK AND SAMPLING SCHEDULE $^{(1.)}(5.)$ HISTORY OF PROGRAM D'IMPERIO PROPERTY SITE

	Well T	ype		Monitoring Freque	псу
Well ID	2007 LTGMP <sup>(2.)</sup> Prior  Designation	Current Designation	2007 LTGMP <sup>(1.)</sup>	2015 - 2019 (2.)	2020 LTGMP-3A
MW-45	Plume	Plume	Annual	Annual	Annual
MW-46	Plume	Plume	Annual	Annual	Annual
MW-47	Plume	Plume	Annual	Annual	Annual
MW-50	Plume	Side-Gradient	Semi-Annual	Semi-Annual	Annual
MW-51	Plume	Plume	Annual	Annual	Annual
MW-53	Side-Gradient	Side-Gradient	Semi-Annual	Semi-Annual	Annual
MW-54	Plume	Side-Gradient	Semi-Annual	Annual	Once per 2.5 Years <sup>3</sup>
MW-55	Sentinel	Sentinel	Quarterly	Semi-Annual	Semi-Annual
MW-56	Sentinel	Sentinel	Quarterly	Semi-Annual	Semi-Annual
MW-57	Sentinel	Sentinel	Quarterly	Semi-Annual	Annual
MW-58	Side-Gradient	Side-Gradient	Semi-Annual	None	Once per 2.5 Years <sup>3</sup>
MW-59	Plume	Sentinel	Semi-Annual	Semi-Annual	Semi-Annual
MW-60	Sentinel	Sentinel	Quarterly	Semi-Annual	Annual
0BW-62	Sentinel	Sentinel	None	Semi-Annual	Semi-Annual
0BW-63	Sentinel	Sentinel	None	Semi-Annual	Semi-Annual
LC-2-E	Extraction	Extraction	Quarterly	Semi-Annual	Annual
LC-3-E	Extraction	Extraction	Quarterly	Semi-Annual	Annual
LC-4-E	Extraction	Extraction	Quarterly	Semi-Annual	Annual
LC-5-E	Extraction	Extraction	Quarterly	Semi-Annual	Annual
<b>Lower Cohansey Detache</b>	d Plume (LCDP)				
MW-66	Not yet installed	Former Plume	None	Annual	Annual
MW-68	Not yet installed	Former Plume	None	Semi-Annual	Annual
MW-69	Not yet installed	Plume	None	Semi-Annual	Semi-Annual
MW-70	Not yet installed	Plume	None	Quarterly	Semi-Annual
MW-71	Not yet installed	Side-Gradient	None	Quarterly	Semi-Annual
MW-72	Not yet installed	Side-Gradient	None	Quarterly	Annual
MW-73	Not yet installed	Plume	None	Quarterly	Semi-Annual
MW-74	Not yet installed	Side-Gradient	None	Quarterly	Semi-Annual
MW-75	Not yet installed	Down-Gradient	None	Quarterly	Annual
MW-76	Not yet installed	Down-Gradient	None	Quarterly	Annual
MW-77	Not yet installed	Down-Gradient	None	Quarterly	Annual
MW-78	Not yet installed	Down-Gradient	None	Quarterly	Annual
MW-79	Not yet installed	Sentinel	None	Quarterly	Semi-Annual
MW-80	Not yet installed	Sentinel	None	Quarterly	Semi-Annual
LC-7-E	Not yet installed	Extraction	None	Quarterly	Annual
LC-8-E	Not yet installed	Extraction	None	Quarterly	Annual
LC-9-E	Not yet installed	Extraction	None	Quarterly	Annual

# TABLE 2-1 GROUNDWATER QUALITY NETWORK AND SAMPLING SCHEDULE (1.) (5.) HISTORY OF PROGRAM D'IMPERIO PROPERTY SITE

	Well	Туре	Monitoring Frequency			
Well ID	2007 LTGMP <sup>(2.)</sup> Prior Designation	Current Designation	2007 LTGMP <sup>(1.)</sup>	2015 - 2019 <sup>(2.)</sup>	2020 LTGMP-3A	
		Sampling Frequency				
Quarterly sam	pling is eliminated	Quarterly	8	14	0	
Semi-annual sampling to	be conducted once per year,					
genera	lly in March	Semi-Annual	24	28	20	
Annual sampling to be cond	ucted once per year, generally	in				
September	(55 wells Total)	Annual	17	26	35	
. •	ery 2.5 years in lieu of annual					
sampling, generally in eithe	r March or September (68 well					
t	otal)	Once per 2.5 Years <sup>3</sup>	0	0	13	
Sampling conducted ev	ery 5 years in lieu of annual					
sampling, generally in	September (72 wells total)	Once per 5 Years <sup>4</sup>	0	0	4	
		Annualized Total Samples:	97	138	81	

#### Notes:

- (1.) Per the "Long Term Groundwater Monitoring Plan, D'Imperio Property Site, Revision 2B", (Brown and Caldwell, November 2007) .
- (2.) As described in the "2014 Annual Groundwater Report", (Brown and Caldwell, June 2015).
- (3.) The 2.5-Year frequency sampling event will also include those wells designated for Annual and Semi-Annual Sampling. The 2.5 year frequency will allow for seasonal variation in the execution of this sampling. During 1 sampling event per 5 year period the March and September samplings will be reversed.
- (4.) The 5-Year frequency sampling event will also include those wells designated for the 2.5 year, Annual and Semi-Annual Sampling.
- (5.) Only wells sampled as part of the 2007 LTGMP Revision 2B or later programs are included in this table.

TABLE 3-1 HYDRAULIC MONITORING NETWORK D'IMPERIO PROPERTY SITE

Bridgeton Sand Aquifer         Easting         Depth         Reference Levation           20-2         226314.55         447063.85         28         64.66           23-1         226185.02         446815.62         26         65.30           24-1         226032.81         446815.62         29         66.63           BR-1-E         226419.16         446839.12         45         62.58           BR-1-R         226016.55         447400.66         38.5         67.04           BR-2-E         226130.03         446858.60         46         63.03           BR-2-R         226064.13         447472.72         36         65.65           BR-3-E         225947.66         446359.51         52         72.24           BR-3-E         22620.70         44706.57         42         64.84           MW-20-1-R         226281.12         44706.57         42         64.84           MW-20-1-R         226281.12         44706.57         42         64.84           MW-21-R         225714.87         445711.31         41         73.45           MW-24-1         22574.87         445711.31         41         73.45           MW-31-A         225695.33         4464516.6	W. II IB	No. de	Facility	D	Defenses Election
20-2	Well ID	Northing	Easting	Depth	Reference Elevation
23-1					
24-1 226032.81 446387.36 29 69.63 BR-1-E 226419.16 446639.12 45 62.58 BR-1-R 226016.55 447400.66 38.5 67.04 BR-2-E 226130.03 446858.60 46 63.03 BR-2-R 226064.13 447472.7 36 65.65 BR-3-R 226094.13 447472.7 36 65.65 BR-3-R 22604.13 447472.7 36 65.65 BR-3-E 225947.56 446359.51 52 72.24 BR-3-R 26123.24 447404.72 52.3 65.55 BR-4-E 226261.70 447205.90 46 62.70 WW-20-1-R 226281.12 44706.67 42 64.84 WW-25-1-R 226281.12 44706.67 42 64.84 WW-25-1-R 226409.59 446705.26 24 64.06 WW-28-1 225714.87 445711.31 41 73.45 WW-29-A 225481.36 444712.02 40 58.52 WW-31-A 225695.34 443904.56 38 57.61 WW-40 226143.02 446315.09 47 68.18 WW-41 226984.64 446616.62 46 78.13 WW-42 225655.33 446545.68 44 74.80 WW-43 226024.84 446686.75 43 71.03 WW-44 22703.01 447168.38 20 58.77 Upper Cohansey Sand Aquifer 23-2 22695.23 44690.04 75 74.09 WW-20-3-R 226295.23 47084.36 63 64.92 WW-24-2-R 22601.89 446335.44 62 65 66.67 CS-2 225869.86 446908.04 75 74.09 WW-20-3-R 226295.23 47084.36 63 64.92 WW-24-2-R 22601.89 446335.84 63 70.36 WW-28-2 22518.88 445707.52 93 72.98 WW-29-1 225473.40 444708.38 65 60.80 WW-31-1 22664.22 443907.03 65 58.95 WW-33-1 224907.44 443612.23 55 53.74 WW-34 22560.09 4463436.99 72.99 WW-34-2 225637.31 44590.57 68 62.18 WW-34 22560.09 4463431.89 70 61.66 WW-34 22560.00 444834.18 70 61.66 WW-37 22568.22 73 44490.95 76 88 62.18 WW-39 22528.10 445259.44 76 67.00 WW-42 227030.32 447159.48 72 58.89 WW-39 22528.10 445259.44 76 67.00 WW-44-2 227030.32 447159.48 72 58.89 WW-39 225667.31 44390.00 80 64.17 VE-45 22601.55 447162.65 99 62.66 UC-1-R 22601.55 447162.65 99 62.66 UC-1-R 22601.58 447553.10 84 65324.9 94 72.99 UC-2-R 226462.88 447553.10 84 65324.9 94 72.99 UC-2-R 226462.88 447553.10 84 65324.9 94 72.99 UC-2-R 226462.88 447553.10 84 65324.9 94 72.99					
BR-1-E 226419.16 446639.12 45 62.58 BR-1-R 226016.55 447400.66 38.5 67.04 BR-2-R 226016.35 447400.66 38.5 67.04 BR-2-R 226064.13 447402.77 36 65.65 BR-3-E 225947.56 446359.51 52 72.24 BR-3-R 26123.24 44704.72 52.3 65.55 BR-3-E 226213.24 44704.72 52.3 65.55 BR-3-E 226213.24 44704.72 52.3 65.55 BR-4-E 226261.70 447205.90 46 62.70 MW-20-1-R 226281.12 447065.57 42 64.84 MW-28-1 226714.87 445711.31 41 73.45 MW-29-A 225481.36 44712.02 40 58.52 MW-31-A 225695.34 443904.56 38 57.61 MW-40 226143.02 446315.09 47 68.18 MW-41 225894.66 446516.62 46 78.13 MW-42 225655.33 446545.68 44 74.80 MW-43 226024.84 446686.75 43 71.03 MW-44-1 22703.01 447163.38 20 58.77 Upper Cohansey Sand Aquifer 23-2 226195.02 446814.64 62 65.67 25-2 22642.60 446712.07 60 64.61 C25-2 225869.86 446808.04 75 74.09 MW-20-3-R 226295.23 447084.36 63 64.92 MW-24-2-R 226010.89 446335.84 63 70.36 MW-24-2-R 226010.89 446335.84 63 70.36 MW-34 225604.04 444708.38 65 60.80 MW-34 225604.04 444708.38 65 60.80 MW-24-2-R 226010.89 446335.84 63 70.36 MW-24-2-R 226010.89 446335.84 63 70.36 MW-31-1 225684.22 443907.03 65 58.95 MW-33-1 224907.44 443612.23 55 53.74 MW-34 22560.04 444708.38 65 60.80 MW-35-2 225718.48 445705.52 93 72.98 MW-29-1 225473.04 444708.38 65 60.80 MW-31-1 225684.22 443907.03 65 58.95 MW-33-1 225607.94 443907.03 65 58.95 MW-33-1 225607.94 443907.03 65 58.95 MW-34 22560.04 444969.57 68 62.18 MW-35 225282.73 444969.57 68 62.18 MW-36 225789.83 445064.40 72 65.76 MW-37 225637.91 445134.32 74 67.92 MW-38 225569.73 44596.40 72 65.76 MW-37 225607.91 445596.49 80 79.63 MW-48 225609.73 44590.79 80 68.23 UC-1-E 226201.55 44716.265 99 62.66 UC-1-R 22691.33 447558.52 78 59.98 UC-2-E 226462.88 44755.310 84 6554.99 94 72.99 UC-2-E 22582.91 445890.24 96 75.63					
BR-1-R					
BR-2-E 226130.03 446858.60 46 63.03 BR-2-R 226064.13 447472.27 36 65.65 BR-3-E 225947.56 446359.51 52 72.24 BR-3-R 226123.24 447404.72 52.3 65.55 BR-4-E 226261.70 447205.90 46 62.70 MW-20-1-R 226409.59 446705.26 24 64.06 MW-25-1-R 226409.59 446705.26 24 64.06 MW-28-1 225714.87 445711.31 41 73.45 MW-29-A 225481.36 444712.02 40 58.52 MW-31-A 225695.34 443904.56 38 57.61 MW-40 226143.02 446315.09 47 68.18 MW-41 225894.66 446516.62 46 78.13 MW-42 225655.33 446546.68 44 74.80 MW-43 226024.84 446686.75 43 71.03 MW-44-1 227033.01 447168.38 20 58.77 Upper Cohansey Sand Aquifer Upper Cohansey Sand Aquifer Usper Cohansey Sand Sand Sand Sand Sand Sand Sand Sand					
BR-2-R 226064.13 447472.27 36 65.65 BR-3-E 225947.56 446359.51 52 72.24 BR-3-E 226123.24 447404.72 52.3 65.55 BR-4-E 226261.70 447205.90 46 62.70 MW-20-1-R 226281.12 447666.57 42 64.84 MW-25-1-R 226409.59 446705.26 24 64.06 MW-28-1 225714.87 445711.31 41 73.45 MW-29-A 225481.36 444712.02 40 58.52 MW-31-A 225695.34 443904.56 38 57.61 MW-40 226143.02 446315.09 47 68.18 MW-41 225894.66 446516.62 46 78.13 MW-42 225655.33 446545.68 44 74.80 MW-42 225655.33 446686.75 43 71.03 MW-44-1 227033.01 447168.38 20 58.77  Upper Cohansey Sand Aquifer 23-2 226195.02 446814.64 62 65.67 25-2 226426.20 446712.07 60 64.61 26-2 225869.86 446908.04 75 74.09 MW-20-3-R 226295.23 447084.36 63 63 64.92 MW-24-2-R 226010.89 446335.84 63 70.36 MW-24-2-R 226074 444708.38 65 60.80 MW-31-1 225684.22 443907.03 65 58.95 MW-33-1 224907.44 443612.23 55 53.74 MW-34 225678.83 445604.0 72 65.76 MW-39 225282.73 444805.77 68 62.18 MW-31 225684.22 443907.03 65 58.95 MW-33-1 224907.44 443612.23 55 53.74 MW-34 225610.40 444834.18 70 61.66 MW-35 225282.73 444805.77 68 62.18 MW-36 225789.83 445064.0 72 65.76 MW-37 225637.91 445134.32 74 67.92 MW-38 225474.10 44590.57 68 62.18 MW-39 225282.73 444805.77 68 62.18 MW-39 225282.73 44596.57 68 62.18 MW-39 225687.91 445134.32 74 67.92 MW-49 225688.2 447559.38 80 68.23 UC-1-E 22601.55 447162.65 99 62.66 UC-1-R 22601.55 447162.65 99 62.66 UC-1-R 22601.55 447162.65 99 62.66 UC-1-R 22642.88 447553.10 84 61.54 UC-2-R 226413.88 447553.10 84 61.54 UC-3-R 22642.88 447553.10 84 61.54					
BR-3-E 225947.56 446359.51 52 72.24 BR-3-R 226123.24 447404.72 52.3 65.55 BR-4-E 226261.70 447205.90 46 62.70 MW-20-1-R 226281.12 447066.57 42 64.84 MW-25-1-R 226409.59 446705.26 24 64.06 MW-28-1 225714.87 445711.31 41 73.45 MW-28-A 225481.36 444712.02 40 58.82 MW-31-A 225695.34 43904.56 38 57.61 MW-40 226143.02 446315.09 47 68.18 MW-41 225894.66 446616.62 46 78.13 MW-42 225655.33 446545.68 44 74.80 MW-43 226024.84 446686.75 43 71.03 MW-44 127033.01 447168.38 20 58.77 Upper Cohansey Sand Aquifer 23-2 226195.02 446814.64 62 65.67 25-2 226426.20 446712.07 60 64.61 26-2 225869.86 446908.04 75 74.09 MW-20-3-R 226295.23 447084.36 63 64.92 MW-24-R 226010.89 446338.84 63 70.36 MW-29-1 225473.40 444708.38 65 60.80 MW-31-1 225684.22 443907.03 65 58.95 MW-33-1 224907.44 443612.23 55 53.74 MW-34 225610.40 444834.18 70 61.66 MW-35 22528.73 444969.57 68 62.18 MW-36 225687.91 445134.32 74 67.92 MW-38 225617.04 444834.18 70 61.66 MW-36 225687.91 445134.32 74 68.51 MW-39 225328.10 445259.44 76 67.00 MW-39 225328.10 445259.44 76 67.00 MW-39 225637.91 445134.32 74 67.92 MW-38 225617.94 44589.57 68 62.18 MW-39 225628.73 444969.57 68 62.18 MW-39 225628.73 444969.57 68 62.18 MW-39 225687.91 445134.32 74 67.92 MW-38 225675.88 44506.40 72 65.76 MW-39 225687.91 445134.32 74 67.92 MW-49 225697.91 44768.06 71.5 59.31 UC-1-E 226115.99 447553.10 84 61.54 UC-2-E 226115.99 447553.10 84 61.54 UC-2-E 226115.99 446736.07 83.5 63.99 UC-2-R 226462.88 447553.10 84 61.54 UC-3-E 226913.8 447553.10 8					
BR-3-R		226064.13	447472.27		
BR-4-E 226261.70 447205.90 46 62.70 MW-20-1-R 226281.12 447066.57 42 64.84 MW-25-1-R 226409.59 446705.26 24 64.06 MW-28-1 225714.87 445711.31 41 73.45 MW-29-A 225481.36 444712.02 40 58.52 MW-31-A 225695.34 443904.56 38 57.61 MW-40 226143.02 446315.09 47 68.18 MW-41 225894.66 446516.62 46 78.13 MW-42 225655.33 446545.68 44 74.80 MW-43 226042.84 446666.75 43 71.03 MW-44-1 227033.01 447163.38 20 58.77 Upper Cohansey Sand Aquifer 23-2 22642.62 446712.07 60 64.61 25-2 225869.86 446908.04 75 74.09 MW-20-3-R 226295.23 447084.36 63 64.92 MW-24-2-R 22601.89 446335.94 63 70.36 MW-31-1 225634.24 443907.36 65 58.95 MW-31-1 225634.24 443907.3 65 58.95 MW-31-1 225634.24 443907.3 65 58.95 MW-31-1 225637.34 447168.38 70 61.66 MW-31-1 225634.22 443907.03 65 58.95 MW-31-1 225637.34 447168.38 70 61.66 MW-33-1 224907.44 443612.23 55 58.95 MW-31-1 225637.91 447159.38 70 61.66 MW-33-1 225607.91 445134.32 74 67.92 MW-36-2 225718.48 445707.52 93 72.98 MW-31-1 225637.34 44869.57 68 62.18 MW-31-1 225634.22 443907.03 65 58.95 MW-31-1 225637.91 445134.32 74 67.92 MW-38-3 22528.73 444969.57 68 62.18 MW-31-1 225637.91 445134.32 74 67.92 MW-38-3 22528.73 444969.57 68 62.18 MW-39-1 225679.83 445664.40 72 65.76 MW-36-2 225798.83 445664.40 72 65.76 MW-37 225637.91 445134.32 74 67.92 MW-39-1 225679.91 445134.32 74 67.92 MW-39-1 225679.91 445134.32 74 67.92 MW-39-1 225679.83 445664.40 72 65.76 MW-37 225637.91 445134.32 74 67.92 MW-38-225627.73 444969.57 68 62.18 MW-39-225627.73 444969.67 75.55 69.96 62.66 UC-2-R 22691.52 44673.60 71.5 59.31 UC-2-R 22692.05 446736.07 83.5 63.99 UC-2-R 226458.82 447539.38 80 68.23 UC-1-R 226615.99 44753.00 84 61.54 UC-3-R 226613.88 44755	BR-3-E	225947.56	446359.51	52	72.24
MW-20-1-R	BR-3-R	226123.24	447404.72	52.3	65.55
MW-25-1-R	BR-4-E	226261.70	447205.90	46	62.70
MW-28-1 225714.87 445711.31 41 73.45 MW-29-A 225481.36 444712.02 40 58.52 MW-31-A 225695.34 443904.56 38 57.61 MW-40 226143.02 446315.09 47 68.18 MW-41 225894.66 446516.62 46 78.13 MW-42 225655.33 446545.68 44 74.80 MW-41 227033.01 447168.38 20 58.77 Upper Cohansey Sand Aquifer 23-2 226195.02 446814.64 62 65.75 25-2 226426.20 446712.07 60 64.61 26-2 225695.33 447084.36 63 63 64.92 MW-20-3-R 226295.23 447084.36 63 63 64.92 MW-24-2-R 226010.89 446335.84 63 70.36 MW-29-1 225473.40 444708.38 65 60.80 MW-31-1 225684.22 443907.03 65 58.95 MW-33-1 224907.44 443612.23 55 63.74 MW-34 225610.40 444834.18 70 61.66 MW-35 225282.73 444969.57 68 62.18 MW-36 225789.83 445064.40 72 65.76 MW-37 225637.91 445134.32 74 67.92 MW-39 225282.10 445201.21 74 68.51 MW-39 225328.10 445259.44 76 67.00 MW-48 225952.30 447159.48 72 58.89 MW-39 225328.10 445259.44 76 67.00 MW-44-2 227030.32 447159.48 72 58.89 MW-39 225328.10 445259.44 76 67.00 MW-48 225695.91 445134.32 74 67.92 MW-48 225695.91 445134.32 74 67.92 MW-48 225697.91 445134.32 74 67.92 MW-39 225637.91 445201.21 74 68.51 MW-39 225680.33 44766.49 80 68.23 UC-1E 22601.55 447160.65 99 62.66 UC-1R 226642.88 447539.38 80 68.23 UC-1E 226615.59 447160.65 99 62.66 UC-2R 226462.88 447553.50 84 6756.3 99 62.66 UC-2R 226462.88 447558.52 78 69.98 UC-2R 226462.88 447558.52 78 69.98 UC-2R 226413.38 47558.52 78 69.98 UC-2R 226413.38 47558.52 78 69.98	MW-20-1-R	226281.12	447066.57	42	64.84
MW-29-A 225481.36 444712.02 40 58.52 MW-31-A 225695.34 443904.56 38 57.61 MW-40 226143.02 446315.09 47 68.18 MW-41 225894.66 446516.62 46 78.13 MW-42 225655.33 446545.68 44 74.80 MW-43 226024.84 446686.75 43 71.03 MW-44-1 22703.01 447168.38 20 58.77 Upper Cohansey Sand Aquifer  23-2 226195.02 446814.64 62 65.67 25-2 226426.20 446712.07 60 64.61 26-2 225869.86 446908.04 75 74.09 MW-20-3-R 226295.23 447084.36 63 64.92 MW-24-2-R 226010.89 446335.84 63 70.36 MW-31-1 225634.22 443907.03 65 58.95 MW-33-1 224907.44 443612.23 55 53.74 MW-34 225610.40 444834.18 70 61.66 MW-35 225282.73 444969.57 68 62.18 MW-36 225789.83 445064.40 72 65.76 MW-37 225637.91 445134.32 74 67.92 MW-38 225278.10 44529.41 76 67.92 MW-39 225282.10 44529.44 76 67.92 MW-39 225282.10 44529.44 76 67.92 MW-49 225599.73 44494.00 80 68.23 MW-49 225529.73 44494.00 80 68.23 MW-49 225529.73 44494.00 80 68.23 MW-49 225529.73 44494.00 80 68.23 MW-49 225529.71 44759.48 72 58.89 MW-49 225529.71 44762.65 99 62.66 UC-1-R 22601.55 447162.65 99 62.66 UC-1-R 22601.55 44759.82 447559.24 96 75.63	MW-25-1-R	226409.59	446705.26	24	64.06
MW-31-A 225695.34 443904.56 38 57.61 MW-40 226143.02 446315.09 47 68.18 MW-41 225894.66 446516.62 46 78.13 MW-42 225655.33 44654.68 44 74.80 MW-43 226024.84 446686.75 43 71.03 MW-44-1 227033.01 447168.38 20 58.77  Upper Cohansey Sand Aquifer  23-2 226195.02 446814.64 62 65.67 25-2 226426.20 446712.07 60 64.61 26-2 225869.86 446908.04 75 74.09 MW-20-3-R 226295.23 447084.36 63 63 64.92 MW-24-2-R 226010.89 446335.84 63 70.36 MW-28-2 225718.48 445707.52 93 72.98 MW-29-1 225473.40 444708.38 65 60.80 MW-31-1 225684.22 443907.03 65 58.95 MW-33-1 224907.44 443612.23 55 53.74 MW-34 225610.40 444834.18 70 61.66 MW-35 225282.73 444969.57 68 62.18 MW-36 225789.83 445064.40 72 65.76 MW-37 225637.91 445134.32 74 67.92 MW-38 225474.10 445201.21 74 68.51 MW-39 22538.10 445259.44 76 67.00 MW-44-2 227030.32 447159.48 72 58.89 MW-49 225569.73 44490.00 80 64.17 PZ-45 226415.99 447512.23 80 68.23 WW-49 225569.73 44490.00 80 64.17 PZ-46 226458.82 44759.38 80 68.23 WW-49 225569.71 44759.48 72 58.89 MW-49 225569.73 44490.00 80 68.23 WW-49 225569.71 44759.48 72 58.89 MW-49 225569.73 44490.00 80 68.23 WW-49 225569.71 44759.48 72 58.89 MW-49 225569.73 44490.00 80 68.23 WW-49 225569.73 444940.00 80 68.23 WW-49 225569.73 44759.49 80 68.23 WW-49 225569.73 444940.00 80 68.23 WW-49 225569.71 44759.48 72 58.89 MW-49 225569.73 444940.00 80 68.23 WW-49 225569.73 444940.00 80 68.23 WW-49 225569.73 44759.49 90 62.66 UC-1-R 22601.55 447162.65 99 62.66 UC-1-R 22601.55 447162.65 99 62.66 UC-1-R 226418.28 447559.10 84 61.54 UC-2-R 22642.88 447559.10 84 61.54 UC-2-R 22642.88 447559.10 84 61.54 UC-2-R 226413.38 447558.52 78 59.98 UC-4-E 225929.60 446324.49 94 72.99 UC-3-R 226413.38 447558.52 78 59.98 UC-4-E 225829.14 445890.24 96 75.63	MW-28-1	225714.87	445711.31	41	73.45
MW-40	MW-29-A	225481.36	444712.02	40	58.52
MW-41 225894.66 446516.62 46 78.13 MW-42 225655.33 446545.68 44 74.80 MW-43 226024.84 446686.75 43 71.03 MW-44-1 227033.01 447168.38 20 58.77  Upper Cohansey Sand Aquifer  23-2 226195.02 446814.64 62 65.67 25-2 226426.20 446712.07 60 64.61 26-2 225869.86 446908.04 75 74.09 MW-20-3-R 226295.23 447084.36 63 64.92 MW-24-2-R 226010.89 446335.84 63 70.36 MW-28-2 225718.48 445707.52 93 72.98 MW-29-1 225473.40 444708.38 65 60.80 MW-31-1 225684.22 443907.03 65 58.95 MW-33-1 224907.44 443612.23 55 53.74 MW-34 225610.40 444834.18 70 61.66 MW-35 225282.73 444969.57 68 62.18 MW-36 225789.83 445064.40 72 65.76 MW-37 225637.91 445134.32 74 67.92 MW-38 225474.10 445201.21 74 68.51 MW-39 225328.10 445259.44 76 67.00 MW-44-2 227030.32 447159.48 72 58.89 MW-48 225932.04 445596.49 80 79.63 MW-48 225659.73 44490.00 80 64.17 PZ-45 226415.99 447512.23 80 68.23 UC-1-E 226201.55 447162.65 99 62.66 UC-1-R 226597.11 447483.06 71.5 59.31 UC-2-E 226115.29 446736.07 83.5 63.69 UC-2-R 22642.88 447553.10 84 67.59.2 UC-3-R 22642.88 447558.52 78 59.98 UC-3-R 226413.38 447558.52 78 59.98 UC-3-R 226413.38 447558.52 78 59.98 UC-3-E 22582.14 445890.24 96 75.63	MW-31-A	225695.34	443904.56	38	57.61
MW-42         225655.33         446545.68         44         74.80           MW-43         226024.84         446686.75         43         71.03           MW-44-1         227033.01         447168.38         20         58.77           Upper Chansey Sand Aquifer           23-2         226195.02         446814.64         62         65.67           25-2         226426.20         446712.07         60         64.61           26-2         225869.86         446908.04         75         74.09           MW-20-3-R         226295.23         447084.36         63         64.92           MW-24-2-R         226010.89         446335.84         63         70.36           MW-24-1         225473.40         444708.38         65         60.80           MW-31-1         225684.22         443907.03         65         58.95           MW-33-1         224907.44         443612.23         55         53.74           MW-34         225610.40         444834.18         70         61.66           MW-35         225282.73         444969.57         68         62.18           MW-36         225789.83         445064.40         72         65.76	MW-40	226143.02	446315.09	47	68.18
MW-43       226024.84       446686.75       43       71.03         MW-44-1       227033.01       447168.38       20       58.77         Upper Cohansey Sand Aquiffer         23-2       226195.02       446814.64       62       65.67         25-2       226426.20       446712.07       60       64.61         26-2       225869.86       446908.04       75       74.09         MW-20-3-R       226295.23       447084.36       63       64.92         MW-24-2-R       226010.89       446335.84       63       70.36         MW-29-1       225718.48       445707.52       93       72.98         MW-29-1       225473.40       444708.38       65       60.80         MW-31-1       225684.22       443907.03       65       58.95         MW-33-1       224907.44       443612.23       55       53.74         MW-34       225610.40       444834.18       70       61.66         MW-35       225282.73       44969.57       68       62.18         MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92	MW-41	225894.66	446516.62	46	78.13
MW-44-1         227033.01         447168.38         20         58.77           Upper Cohansey Sand Aquifer         23-2         226195.02         446814.64         62         65.67           25-2         226426.20         446712.07         60         64.61           26-2         225869.86         446908.04         75         74.09           MW-20-3-R         226295.23         447084.36         63         64.92           MW-24-2-R         226010.89         446335.84         63         70.36           MW-28-2         225718.48         445707.52         93         72.98           MW-29-1         225473.40         444708.38         65         60.80           MW-31-1         225684.22         443907.03         65         58.95           MW-33-1         224907.44         443612.23         55         53.74           MW-34         225610.40         444834.18         70         61.66           MW-35         225282.73         444969.57         68         62.18           MW-36         225789.83         445064.40         72         65.76           MW-37         225637.91         445134.32         74         67.92           MW-38	MW-42	225655.33	446545.68	44	74.80
Upper Cohansey Sand Aquifer           23-2         226195.02         446814.64         62         65.67           25-2         226426.20         446712.07         60         64.61           26-2         225869.86         446908.04         75         74.09           MW-20-3-R         226295.23         447084.36         63         64.92           MW-24-2-R         226010.89         446335.84         63         70.36           MW-28-2         225718.48         445707.52         93         72.98           MW-29-1         225473.40         444708.38         65         60.80           MW-31-1         225684.22         443907.03         65         58.95           MW-33-1         224907.44         443612.23         55         53.74           MW-34         225610.40         444834.18         70         61.66           MW-35         225282.73         44969.57         68         62.18           MW-36         225789.83         445064.40         72         65.76           MW-37         225637.91         445134.32         74         67.92           MW-38         225474.10         445294.4         76         67.00	MW-43	226024.84	446686.75	43	71.03
Upper Cohansey Sand Aquifer           23-2         226195.02         446814.64         62         65.67           25-2         226426.20         446712.07         60         64.61           26-2         225869.86         446908.04         75         74.09           MW-20-3-R         226295.23         447084.36         63         64.92           MW-24-2-R         226010.89         446335.84         63         70.36           MW-28-2         225718.48         445707.52         93         72.98           MW-29-1         225473.40         444708.38         65         60.80           MW-31-1         225684.22         443907.03         65         58.95           MW-33-1         224907.44         443612.23         55         53.74           MW-34         225610.40         444834.18         70         61.66           MW-35         225282.73         444969.57         68         62.18           MW-36         225789.83         445064.40         72         65.76           MW-37         225637.91         445134.32         74         67.92           MW-38         225474.10         4452594.4         76         67.00	MW-44-1	227033.01	447168.38	20	
23-2	<b>Upper Cohansey Sar</b>	nd Aquifer			
25-2		<del>-</del>	446814.64	62	65.67
26-2	25-2	226426.20	446712.07		64.61
MW-20-3-R       226295.23       447084.36       63       64.92         MW-24-2-R       226010.89       446335.84       63       70.36         MW-28-2       225718.48       445707.52       93       72.98         MW-29-1       225473.40       444708.38       65       60.80         MW-31-1       225684.22       443907.03       65       58.95         MW-33-1       224907.44       443612.23       55       53.74         MW-34       225610.40       444834.18       70       61.66         MW-35       225282.73       444969.57       68       62.18         MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225697.33       444940.00       80       64.17         PZ-46       226458.82       447539.38		225869.86	446908.04	75	
MW-24-2-R       226010.89       446335.84       63       70.36         MW-28-2       225718.48       445707.52       93       72.98         MW-29-1       225473.40       444708.38       65       60.80         MW-31-1       225684.22       443907.03       65       58.95         MW-33-1       224907.44       443612.23       55       53.74         MW-34       225610.40       444834.18       70       61.66         MW-35       225282.73       444969.57       68       62.18         MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         UC-1-E       226201.55       447162.65	MW-20-3-R				
MW-28-2       225718.48       445707.52       93       72.98         MW-29-1       225473.40       444708.38       65       60.80         MW-31-1       225684.22       443907.03       65       58.95         MW-33-1       224907.44       443612.23       55       53.74         MW-34       225610.40       444834.18       70       61.66         MW-35       225282.73       444969.57       68       62.18         MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
MW-29-1       225473.40       444708.38       65       60.80         MW-31-1       225684.22       443907.03       65       58.95         MW-33-1       224907.44       443612.23       55       53.74         MW-34       225610.40       444834.18       70       61.66         MW-35       225282.73       444969.57       68       62.18         MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       <					
MW-31-1       225684.22       443907.03       65       58.95         MW-33-1       224907.44       443612.23       55       53.74         MW-34       225610.40       444834.18       70       61.66         MW-35       225282.73       444969.57       68       62.18         MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
MW-33-1       224907.44       443612.23       55       53.74         MW-34       225610.40       444834.18       70       61.66         MW-35       225282.73       444969.57       68       62.18         MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       <					
MW-34       225610.40       444834.18       70       61.66         MW-35       225282.73       444969.57       68       62.18         MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-R       225929.60       446324.49 <t< td=""><td></td><td></td><td></td><td></td><td></td></t<>					
MW-35       225282.73       444969.57       68       62.18         MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       <					
MW-36       225789.83       445064.40       72       65.76         MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24					
MW-37       225637.91       445134.32       74       67.92         MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
MW-38       225474.10       445201.21       74       68.51         MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
MW-39       225328.10       445259.44       76       67.00         MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
MW-44-2       227030.32       447159.48       72       58.89         MW-48       225932.04       445596.49       80       79.63         MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
MW-48 225932.04 445596.49 80 79.63 MW-49 225569.73 444940.00 80 64.17 PZ-45 226415.99 447512.23 80 68.23 PZ-46 226458.82 447539.38 80 68.23 UC-1-E 226201.55 447162.65 99 62.66 UC-1-R 226597.11 447483.06 71.5 59.31 UC-2-E 226115.29 446736.07 83.5 63.69 UC-2-R 226462.88 447553.10 84 61.54 UC-3-E 225929.60 446324.49 94 72.99 UC-3-R 226413.38 447558.52 78 59.98 UC-4-E 225829.14 445890.24 96 75.63					
MW-49       225569.73       444940.00       80       64.17         PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
PZ-45       226415.99       447512.23       80       68.23         PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
PZ-46       226458.82       447539.38       80       68.23         UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
UC-1-E       226201.55       447162.65       99       62.66         UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
UC-1-R       226597.11       447483.06       71.5       59.31         UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
UC-2-E       226115.29       446736.07       83.5       63.69         UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
UC-2-R       226462.88       447553.10       84       61.54         UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
UC-3-E       225929.60       446324.49       94       72.99         UC-3-R       226413.38       447558.52       78       59.98         UC-4-E       225829.14       445890.24       96       75.63					
UC-3-R     226413.38     447558.52     78     59.98       UC-4-E     225829.14     445890.24     96     75.63					
UC-4-E 225829.14 445890.24 96 75.63					
		226413.38	447558.52		
UC-4-R 226303.14 447584.01 86 62.67	UC-4-E	225829.14	445890.24	96	75.63
	UC-4-R	226303.14	447584.01	86	62.67

TABLE 3-1 HYDRAULIC MONITORING NETWORK D'IMPERIO PROPERTY SITE

Well ID	Northing	Easting	Depth	Reference Elevation
UC-5-R	226397.71	447402.69	92	62.95
UC-6-E	225546.21	444982.30	93	61.24
UC-6-R	226370.60	447573.03	78	62.14
<b>Lower Cohansey Sar</b>	nd Aquifer			
LC-1-E	225391.37	444379.67	165	49.36
LC-1-R	226168.75	447516.04	163	63.45
LC-2-E	224706.12	442726.14	136	52.20
LC-2-R	226559.30	447247.33	155	61.09
LC-3-E	224554.03	442898.41	136	51.23
LC-3-R	226261.00	447195.00	143	66.10
LC-4-E	224391.93	443015.75	136	51.71
LC-5-E	224290.51	443141.05	136	49.97
LC-7-E	222535.00	441642.00	138	42.10
LC-8-E	222624.00	441494.00	141	45.50
LC-9-E	222742.00	441378.00	144	48.92
MW-29-2	225476.81	444704.85	140	59.26
MW-31-2	225692.41	443903.76	130	57.78
MW-32	225284.59	444169.03	130	53.57
MW-33-2	224900.16	443624.36	130	51.86
MW-45	224662.24	443067.79	125	51.18
MW-46	224619.48	443191.68	118	52.04
MW-47	224720.70	443040.07	125	52.56
MW-50	224586.00	443441.10	131	50.32
MW-51	224980.92	443165.43	127	54.65
MW-53	225042.70	443020.40	128	54.13
MW-54	224523.40	443526.70	130	49.48
MW-55	224794.40	442710.20	128	51.79
MW-56	224440.50	442779.20	128	52.58
MW-57	224319.60	442802.50	128	50.69
MW-58	224350.20	443674.50	128	52.97
MW-59	224159.10	443085.90	128	48.93
MW-60	224129.26	442819.15	125	49.26
MW-64	223838.76	442091.46	145	54.22
MW-65	223970.03	441511.68	155	56.30
MW-66	223918.01	442689.81	130	47.79
MW-67	224190.00	442474.00	133	56.99
MW-68	223651.00	442521.00	128	45.61
MW-69	223413.00	442279.00	130.3	43.44
MW-70	223179.29	441939.66	130	48.35
MW-71	222976.15	442171.94	135	55.55
MW-72	223343.57	441732.38	135	55.21
MW-73	222935.27	441692.07	118	53.56
MW-74	222866.17	441912.67	125	55.15
MW-75	222513.00	441694.00	130	46.29
MW-76	222604.00	441544.00	130	46.33
MW-77	222694.00	441436.00	130	49.51
MW-78	222806.00	441366.00	130	50.98
MW-79	222628.00	441395.00	130	48.80
MW-80	222440.00	441438.00	130	44.61
0BW-61	224300.71	443101.85	130	49.70

TABLE 3-1
HYDRAULIC MONITORING NETWORK
D'IMPERIO PROPERTY SITE

Well ID	Northing	Easting	Depth	Reference Elevation
0BW-62	224402.29	442890.27	130	52.26
0BW-63	224270.60	442976.30	130	50.04
OBW-LC-2-E	224766.80	442757.60	136	50.24
OBW-LC-2-R	226559.30	447247.33	125	60.05
OBW-LC-3-E	224543.88	442914.07	136	50.51
OBW-LC-4-E	224402.03	443023.61	136	49.78
OBW-LC-5-E	224290.54	443119.16	136	48.52
OBW-LC-6-E	223968.00	442307.00	139	58.69
OBW-LC-7-E	222529.00	441649.00	130	43.55
OBW-LC-8-E	222630.00	441488.00	133	47.35
OBW-LC-9-E	222750.00	441376.00	136	50.55

### TABLE 3-2 GROUNDWATER QUALITY NETWORK SAMPLING SCHEDULE D'IMPERIO PROPERTY SITE

Well ID	Well Type	Monitoring Frequency	Methods/Constituents (1.)
Bridgeton Sand (Tbr)			
MW-20-1R	Former Plume	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with Isotope Dilution (I.D.)
MW-24-1	Side-Gradient	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-25-1-R	Side-Gradient	Once per 5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-28-1	Sentinel	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-29-A	Sentinel	Once per 5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-40	Side-Gradient	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-41	Side-Gradient	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-42	Side-Gradient	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-43	Plume	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-44-1	Background	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-52	Former Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
BR-1-E	Extraction	Once per 5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
BR-2-E	Extraction	Every 2.5 Years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
BR-3-E	Extraction	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
BR-4-E	Extraction	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
pper Cohansey Sand (Tu	co)		Tool by Second 2, 1 Blokking by Second International High Indi
MW-20-3-R	Former Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-23-2	Former Plume	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-24-2-R	Plume	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-28-2	Plume	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-29-1	Sentinel	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-34	Sentinel	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-35	Sentinel	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-37	Side-Gradient	Annual	
MW-38	Side-Gradient	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-44-2	Background	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-48	Side-Gradient	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-49	Sentinel	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
UC-1-E	Extraction	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
UC-2-E	Extraction	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
UC-3-E			VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
UC-4-E	Extraction	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
	Extraction	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
UC-6-E	Extraction	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
ower Cohansey Main Plu		Amusal	
MW-29-2	Former Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-31-2	Side-Gradient	Once per 5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-32	Former Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-33-2	Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-45	Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-46	Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-47	Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-50	Side-Gradient	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-51	Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.

### TABLE 3-2 GROUNDWATER QUALITY NETWORK SAMPLING SCHEDULE D'IMPERIO PROPERTY SITE

Well ID	Well Type	Monitoring Frequency	Methods/Constituents <sup>(1.)</sup>
MW-53	Side-Gradient	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-54	Plume	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-55	Sentinel	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-56	Sentinel	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-57	Sentinel	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-58	Side-Gradient	Every 2.5 years	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-59	Sentinel	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-60	Sentinel	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
OBW-62	Sentinel	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
OBW-63	Sentinel	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
LC-2-E	Extraction	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
LC-3-E	Extraction	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
LC-4-E	Extraction	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
LC-5-E	Extraction	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
ower Cohansey Detache	ed Plume (LCDP)		
MW-66	Former Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-68	Former Plume	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-69	Plume	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-70	Plume	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-71	Side-Gradient	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-72	Side-Gradient	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-73	Plume	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-74	Side-Gradient	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-75	Down-Gradient	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-76	Down-Gradient	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-77	Down-Gradient	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-78	Down-Gradient	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-79	Sentinel	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
MW-80	Sentinel	Semi-Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
LC-7-E	Extraction	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
LC-8-E	Extraction	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.
LC-9-E	Extraction	Annual	VOCs by 8260C, 1,4-Dioxane by 8270D SIM Modified with I.D.

#### Notes:

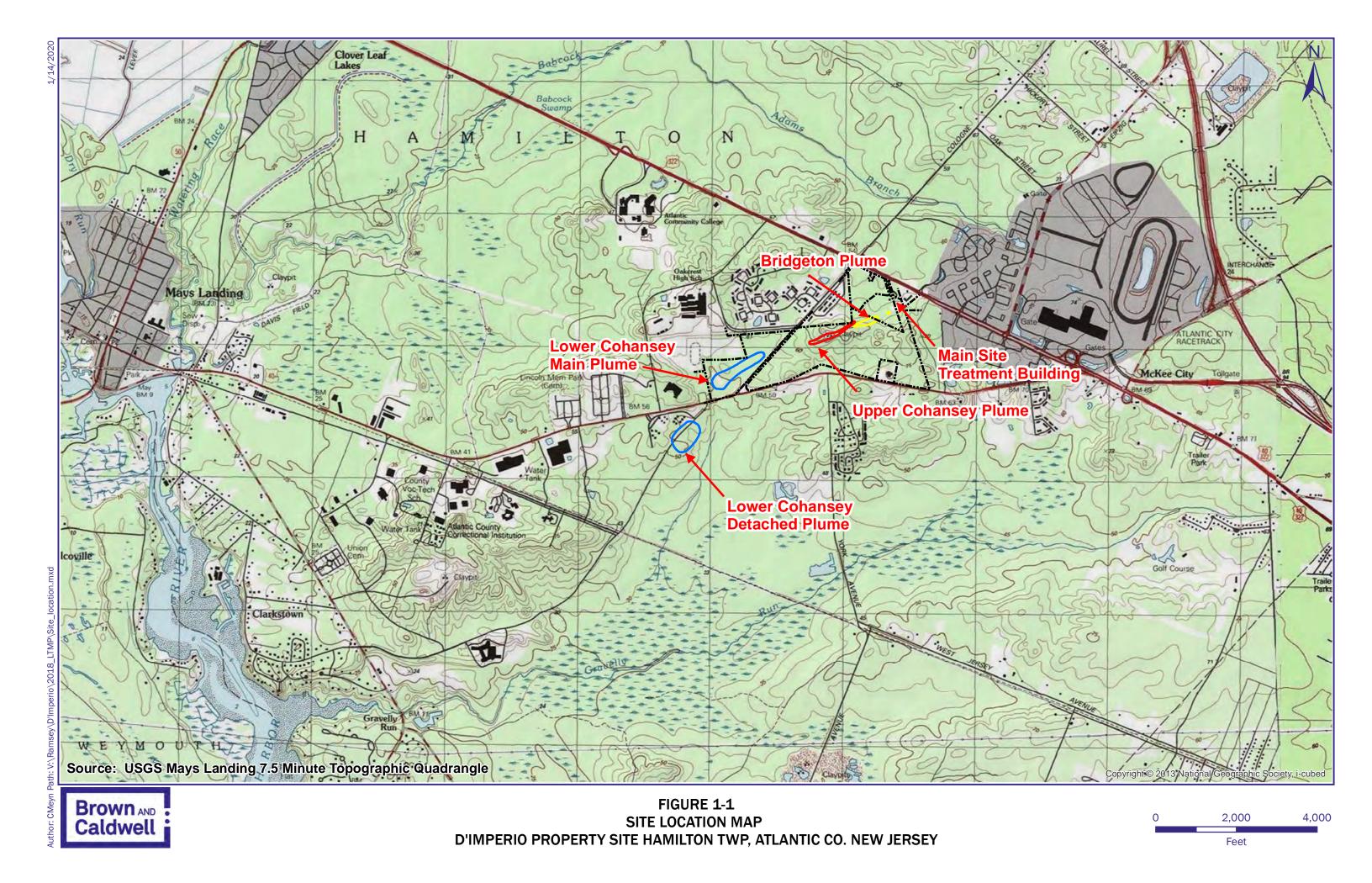
(1.) 1,4-Dioxane will be analyzed for only during the annual, 2.5 year-frequency, and 5 year-frequency sampling events.

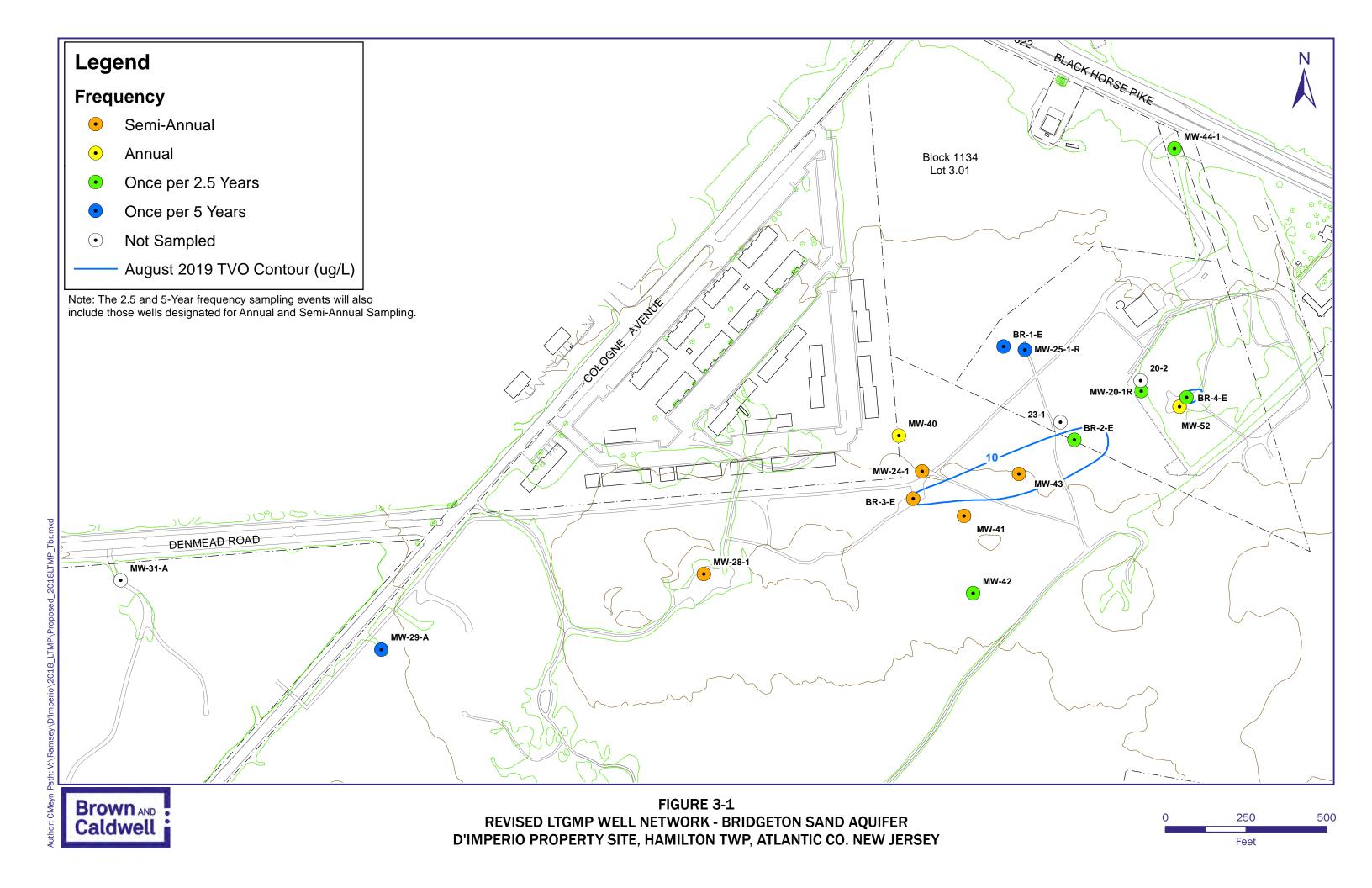
### TABLE 3-3 GROUNDWATER PERFORMANCE STANDARDS (ESTABLISHED BY ADMINISTRATIVE ORDER) D'IMPERIO PROPERTY SITE

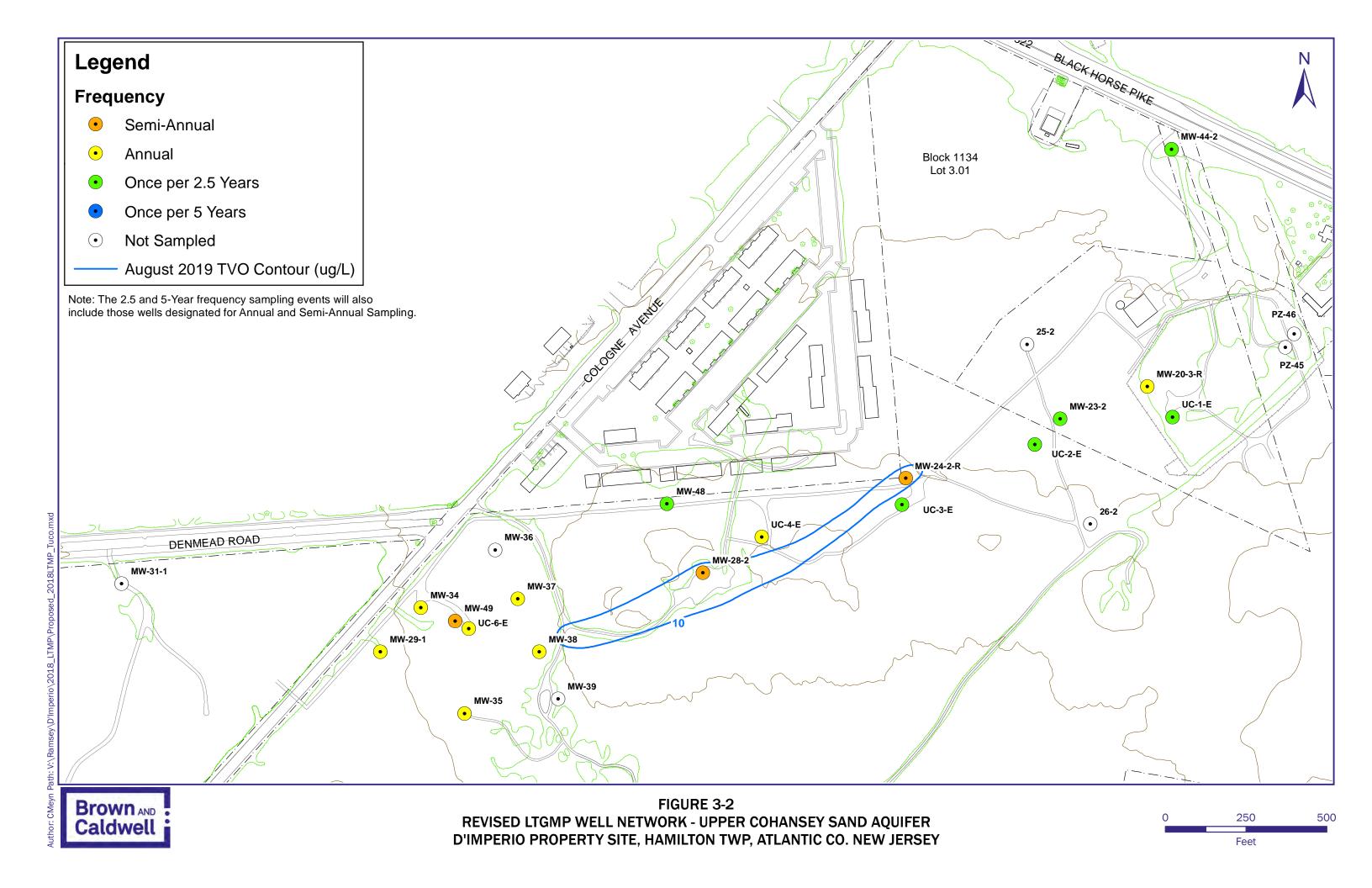
Parameter <sup>a</sup>	Chemical Abstract Service	Performance Standard <sup>b</sup>
	Number	
Conventionals (mg/L) <sup>(e)</sup>		
Biological Oxygen Demand (BOD)	SRP 29	8-10
Volatile Organic Compounds (µg/L)		
Benzene	71-43-2	5 (c)
2-Butanone <sup>(e)(f)</sup>	78-93-3	100
Chlorobenzene <sup>(e)(f)</sup>	108-90-7	(c)
Chloroform	67-66-3	5 (c)
1,1-Dichloroethane	75-34-3	(c)
1,2-Dichloroethane	107-06-2	5 (c)
1,1-Dichloroethene	75-35-4	5 (c)
1,2-Dichloroethene (total)	540-59-0	(c)
1,2-Dichloropropane	78-87-5	(c)
Ethylbenzene	100-41-4	(c)
Methylene chloride <sup>(e)(f)</sup>	75-09-2	5 (c)
Tetrachloroethene	127-18-4	5 (c)
Toluene	108-88-3	(c)
1,1,1-Trichloroethane	71-55-6	200
Trichloroethene	79-01-6	5 (c)
Metals (µg/L) <sup>(e)</sup>		
Arsenic	7440-38-2	50
Chromium (total)	7440-47-3	Background
Copper	7440-50-8	1,000
Iron	7439-89-6	300
Lead	7439-92-1	50
Manganese	7439-96-5	50
Mercury	7439-97-6	2
Zinc	7440-66-6	5,000
Semi-Volatile Organics (µg/L)		
Phenol <sup>(d)</sup>	108-95-2	300
Inorganics (μg/L) <sup>(e)</sup>		
Chloride	16887-00-6	10,000
Sulfate	14808-79-8	15,000

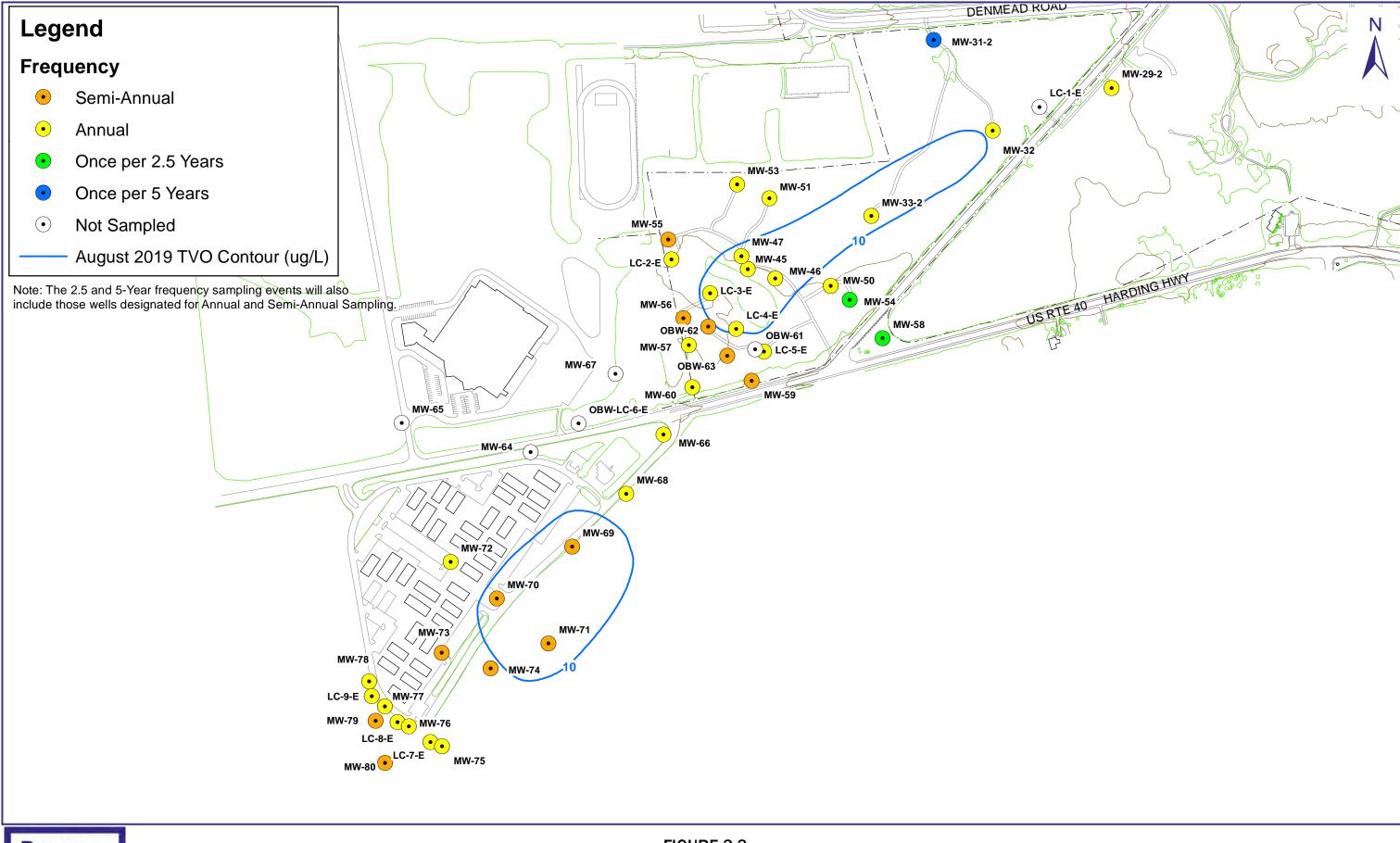
#### Notes:

- (a) Only constituents with Performance Standard limits in the Administrative Order, Attachment IV are listed.
- (b) Based on Administrative Order, Attachment IV limits.
- (c) The sum of the listed VOCs may not exceed 50  $\mu\text{g}/\text{L}.$  No compound-specific limit unless otherwise noted.
- (d) Phenol was discontinued from routine groundwater quality monitoring in 2007, per USEPA approval of the LTGMP-2B.
- (e) Certain additional Performance Standard parameters will be discontinued from routine groudwater monitoring including metals, inorganics, BOD, 2-butanone, chlorobenzene, and methylene chloride per USEPA approval of the LTGMP-3A. The monthly treatment plant effluent and biennial influent samples will continue to be tested for the full Performance Standard parameter list.
- (f) Monthly influent samples will continue to be tested for each of the Performance Standard VOCs including 2-butanone, chlorobenzene, and methylene chloride.









### **ATTACHMENT 2**

### Field Data Sheets for Low-Flow Groundwater Sampling

D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Client: Personnel: urge/Sample Depth:	BCMHM	NPENO INK			•	Well ID:	03/07/22 Mh-79 Mw-79-20	JTD30.5
Actual Time pH	Cert Temp (°C)	Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
108 7,16 11 5,20 11 4.41 120 4.33 1133 4.33 1136 4.38 1137 4.37 1138 4.26 141 4.30 147 4.37 150	17.99 17.25 16.64 16.56 16.47 16.49 16.51 16.43 16.43 16.99 17.26 17.26 17.26	0.230 0.231 0.235 0.233 0.231 0.231 0.231 0.233 0.234 9.233 0.232 0.232 0.233 0.233 0.234 MS	9.89 4.31 4.30 6.29 5.35 5.26 5.25 5.26 5.27 My-	183 32.4 249 214 179 145 98.4 50.1 21.0 14.2 13.2 12.9 16.2	216 295 311 311 326 333 340 351 366 371 370 367 367 367	17.42 17.42 17.45 17.45 17.48 17.48 17.48 17.48 17.48 17.48 17.48 17.49 17.40 17.40	350	

Are low-flow parameters subject to field lab certification? 

Yes No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### **LOW-FLOW GROUNDWATER** SAMPLING FIELD DATA

Well Number: Mw-79 - 2020 307 Upper Saddle River, NJ Office

Project: D'T MP0012 Time: 108	
Personnel: MMM/ NK Weather: 5491 Air Temp	:450
WELL DATA:  Casing Diameter:  Intake Diameter:  Stainless Steel   Steel   PVC   Teflon®   Other:  Intake Diameter:  Stainless Steel   Galv. Steel   PVC   Teflon®   Open rock  DEPTH TO: Static Water Level:   1,37 ft   Bottom of Well:   ft  DATUM:   Top of Protective Casing   Top of Well Casing   Other:  CONDITION: Is Well clearly labeled?   Yes   No   Is well clean to bottom?   Yes   No    Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded)   Yes   No    Does Weep Hole adequately drain well head?   Yes   No    Is Concrete Pad Intact? (not cracked or frost heaved)   Yes   No    Is Padlock Functional?   Yes   No   NA   Is Inner Casing Intact?   Yes   No    Is Inner Casing Properly Capped and Vented?   Yes   No   No    VOLUME OF WATER: Standing in well:   To be purged:	
PURGE DATA:  METHOD:  Bailer, Size:  Bailer, Size:  Pump/Bailer:  Teflon®  Stainless Steel  PVC  Other:  Pumping Rate:  Yes No  Number of Well Volumes Removed:  PURGING EQUIPMENT:  Dedicated  Bladder Pump  2" Submersible Pump  4" Submersible Pump  Teflon®  Toflon®  Polyethylene  Polypropylene  Other:  Pumping Rate:  Yes No  Number of Well Volumes Removed:  Prepared Off-Site  Field Cleaned	
SAMPLING DATA:  METHOD: Bailer, Size: Bladder Pump 2" Submersible Pump 4" Submersible Pump Syringe Sampler Peristaltic Pump Inertial Lift Pump Other:  MATERIALS: Pump/Bailer: Teflon® Tubing/Rope: Teflon® Polyethylene  Stainless Steel Prepared Off-Site Prepared Off-Site Polyethylene  Metals samples field filtered? Yes No Method:  APPEARANCE: Clear Turbid Color: Contains Immiscible Liquid  FIELD DETERMINATIONS: See attached form for field parameter data.	
DUP: No Pyes Name: M1. 79 - 2032000  I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.  Signature: Date: 03/07/22	



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	lient: Br	/	D'IM	perio	. Proj	ect Number: Date: Well ID:	03/97/22	
Perso urge/Sample D	epth:	M [M			•; e		MW-80-,	29220307
Actual Time p	Cert Temp H (°C)	Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
137 5.0 137 5.0 137 5.0 137 5.0 140 5.0 143 5.0 149 5.0 152 5.0 152 5.0	16 16.10 16 15.27 16 15.19 18 15.23 18 15.24 18 15.25 16 15.25 16 15.22 17 15.22 18 15.21 18 15.27 18 15.27 18 15.27	9,090 9,084 9,081 9,020 9,020 9,028 9,	4.97 3.49 3.27 3.22 3.17 3.18 3.21 3.21 3.45 3.45 3.67 3.67 3.59 3.57 0-202	14.7 99.8 225 202 213 227 193 161 128 118 93.3 89.3 69.0 64.4 53.3 47.0 43.5 20307	260 258 234 234 232 236 243 249 259 260 272 275 282 284 289 290 290	13.13 13.14 13.16 13.16 13.18 13.18 13.17 13.18 13.17 13.17 13.17 13.17	350	

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Manufacturer/Model: Hor/ha- U52
Serial No. Unit: 20USY U5k
Calibration Date/Time: 93/07/22

Serial No. Handheld: 5W5H5D00

#### LOW-FLOW GROUNDWATER **SAMPLING FIELD DATA**

Upper Saddle River, NJ Office

Well Number: MW - 80Sample I.D.: MW - 80 - 20210307

17	Personnel: MHm We  Date: <u>Q3/07/22</u> Time: <u>1222</u> Weather: <u>Sugn V</u> Air Temp.: <u>74</u>
	WELL DATA:  Casing Diameter: 6
	PURGE DATA:  METHOD:  Bailer, Size: Bladder Pump 2 2" Submersible Pump 4" Submersible Pump Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other:
	MATERIALS: Pump/Bailer:
	SAMPLING DATA:  METHOD:   Bailer, Size:   Syringe Sampler   Peristaltic Pump  Inertial Lift Pump  Other:   Inertial Lift Pump  Other:  Inertial Lift Pump  Inertial Li
	MATERIALS: Pump/Bailer: Teflon® Stainless Steel  SAMPLING EQUIPMENT: Dedicated Prepared Off-Site Metals samples field filtered? Yes No Method: Clear Turbid Color: Contains Immiscible Liquid  FIELD DETERMINATIONS: See attached form for field parameter data.
	DUP:
	I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.  Signature:  Date: 03/07/22



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	ect Name: Client: Personnel:	Br	nparts M/Na	E .	Project Number:  Date: 03/07/22  Well ID: MW-74  Sample ID: MW-74-20229307						
r dige/oaiii	ріе Верит.						cample is:	70100	200-1/0/		
		Certi	ified Parar	neters							
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments		
442	16,44								NK		
442	5,52	18.52	0.060	5,80	18:2	277	22,06	200			
448	5,28	18.74	0.059	5.61	7.2	247	22.24				
451	5.32	18.85	0.059	5.14	8.3	144	22,04	1			
454	5.71	18,39	0,062	4,72	19.5	41	22.07				
457	6.30	19.01	0.070	5,23	24.5	34	22.08				
500	762	15.61	0,121	5,50	172	82	22,06				
506	6.99	15040	0.103	5,42	98.3	108	22.05				
509	6,57	15.47	0.092	5172	61.5	125	22,08				
5/2	6:14	15,50	0.084	5,48	65.7	146	22.08				
515	5.81	15,57	0.078	5149	53,3	164	22.07				
518	5.62	15,60	0,075	5,50	40.8	180	22.08				
521	5.46	15,65	0,011	5,53	25,5	202	22.07	V			
524 527	5,43	15 70	0.069	5.49	14.7	223	22.07				
530	5,34	15,67	0.069	5,44	13.0	226	2207				
1533	Col	Vect			20307						
			11	1.							
				1111							
			100	MA							
		formation	1533			Analyo	t Signature	Marie	Blesson		
	of Sample:		1773			- Allaiys	. Olgilatule	www.	men ell		
Instrument Data:  Manufacturer/Model: Hariba - U52									-		
Serial No. Unit: 2046Y 45K							Serial No. Handheld: SWS H5 D00				
Calibration Date/Time: 03/07/ 22											
		12 21 1604A	12.12.22.2					I A altag an altag	toido of N I\		
re low-flow	v paramete	rs subject to	o field lab ce	ertification?	☐ Yes ☐ N	o (not requi	red for CERC	LA sites or sites out	ISIDE OT NJ)		
ves low-f	low data m	ust be acco	mpanied by	a complete	d "Field Calib	ration Reco	rd. Horiba U-	52" form or equivale	ent.		

#### LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Upper Saddle River, NJ Office

Well Number: MW- 74/ Sample I.D.: MW- 74-20220307

Project: D'Impart's  Date: 07/07/22 Time: 12/12  Personnel: MHm / We  Weather: 5011/11  Air Temp.: 74
WELL DATA:  Casing Diameter: Stainless Steel Steel PVC Teflon® Other:  Intake Diameter: Stainless Steel Galv. Steel PVC Teflon® Open rock  DEPTH TO: Static Water Level: 2 .02 ft Bottom of Well: ft  DATUM: Top of Protective Casing Top of Well Casing Other:  CONDITION: Is Well clearly labeled? Yes No Is well clean to bottom? Yes No Is Prot. Casing/Surface Mount in Good Cond.? (not bent or corroded) Yes No Does Weep Hole adequately drain well head? Yes No Is Concrete Pad Intact? (not cracked or frost heaved) Yes No Is Padlock Functional? Yes No Is Inner Casing Intact? Yes No Is Inner Casing Properly Capped and Vented? Yes No  VOLUME OF WATER: Standing in well: To be purged: To be purged:
PURGE DATA:  METHOD:  Bailer, Size: Bladder Pump 2" Submersible Pump 4" Submersible Pump Centrifugal Pump Peristaltic Pump Inertial Lift Pump Other:
MATERIALS: Pump/Bailer: Stainless Steel Tubing/Rope: Polyethylene Polypropylene Other:  Pumping Rate: Other: Volume Pumped: 3 2 3 1  Was well Evacuated? Yes No Number of Well Volumes Removed: PURGING EQUIPMENT: Dedicated Prepared Off-Site Field Cleaned
SAMPLING DATA:  METHOD: Bailer, Size: Bladder Pump 2" Submersible Pump 4" Submersible Pump Syringe Sampler Peristaltic Pump Inertial Lift Pump Other:
MATERIALS: Pump/Bailer: Teflon® Tubing/Rope: Teflon® Polyethylene  SAMPLING EQUIPMENT: Dedicated Prepared Off-Site Metals samples field filtered? No Method:  APPEABANCE: Tubing/Rope: Teflon® Polyethylene
APPEARANCE:
DUP: No Yes Name:  MS/MSD: No Yes Name:
I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.
Signature: Date:



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	oject Name: Client: Personnel: nple Depth:	MH	mperio			Proje	Date: Well ID: Sample ID:	MW-4	/22    -20220308
Actual		Cert Temp	ified Para	meters DO	Turbidity	ORP	DTW	Pumping Rate	
Time	рН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
119	8.09	12.94	0.049	5.14	284	269	32.62	200	
22	5,23	13.12	0.057	3:49	16.6	335	32.60	200	
25	4.33	12166	0.060	2.63	14.5	345	32.60	-	
31	4.75	12.77	0.058	2,09	7.1	340	32.60		
34	4,32	1201	9.051	3.22	15.8	363	32-63		Fixed flow rate
37	4,33	17.24	0.053	2.55	15.0	377	32.63		FIRE STAP TATE
140-	4.17	17,21	3,045	8,89	26.5	363	32.62		
43	4.37	16.30	0.046	9,59	26-1	356	32-62		
16	4.18	17.24	0.049	8,63	1004	352	32.62		
49	4,15	16.82	0.049	8,71	7.6	387	32.61		
52	421	16:23	2,049	8.62	7.5	382	32.62		
155	4.26	16:24	0.049	8.60	7,2	379	32.62	Y	
58	4.33	16.96	0.049	8,49	6.2	374	32.62	V	
001		Call	ected	MW	-41-	20220	306		
_									
			1						
			11/1						
			IUK						
								_	
Time o	Sample Into of Sample: of Data:		100	l		Analyst	Signature;	Sal Al	here

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\mathscr{L}$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

Calibration Date/Time: 33/46/22

#### **LOW-FLOW GROUNDWATER SAMPLING FIELD DATA**

Upper Saddle River, NJ Office

Well Number: MW-41 Sample I.D.: MW-41-30220342

Project: Dimperis Personnel: AHM/.V/2	Date:       33/22/22       Time:       04/9         Weather:       C/2004/       Air Temp.:       4/3
WELL DATA:  Casing Diameter:  Intake Diameter:  Static Water Level:  Stainless Steel  Galv. Steel  DEPTH TO: Static Water Level:  DATUM:  Top of Protective Casing  CONDITION:  Is Well clearly labeled?  Stainless Steel  Galv. Steel  Galv. Steel  DEPTH TO: Static Water Level:  Stainless Steel  Galv. Steel  Galv. Steel  DEPTH TO: Static Water Level:  Stainless Steel  Galv. Steel  Fort. Casing Steel  Stop of Well Casing  CONDITION:  Is Well clearly labeled?  Standing Mount in Good Cond.? (  Does Weep Hole adequately drain well head?  Is Concrete Pad Intact? (not cracked or frost head is Padlock Functional?  Yes  NO ANA  Is Inner Casing Properly Capped and Vented?  VOLUME OF WATER:  Standing in well:	I ⊿ PVC □ Teflon® □ Open rock ell:ft □ Other: ell clean to bottom? ⊿ Yes □ No not bent or corroded) ⊿ Yes □ No 1 Yes □ No aved) ⊿ Yes □ No Is Inner Casing Intact? □ Yes □ No □ Yes □ No
PURGE DATA:  METHOD:  □ Bailer, Size: □ Centrifugal Pump □ Peristaltic Purp	☑ 2" Submersible Pump ☐ 4" Submersible Pump np ☐ Inertial Lift Pump ☐ Other:
MATERIALS: Pump/Bailer: Stainless Steel PVC Other: Pumping Rate: Was well Evacuated? Yes No No PURGING EQUIPMENT: Dedicated	Teflon®  (Tubing/Rope: Polyethylene Polypropylene Other:  Volume Pumped: 4.6 4.6  umber of Well Volumes Removed: Field Cleaned
SAMPLING DATA:  METHOD: □ Bailer, Size: □ □ Bladder Pump 2" Suringe Sampler □ Peristaltic Pump □ Iner	Submersible Pump
MATERIALS: Pump Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared Metals samples field filtered? Yes No Metho APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field parameters.	d: Contains Immiscible Liquid
DUP: No Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re	egulatory and project protocols.
Signature: ////////////////////////////////////	Date: <u>93/40/22</u>
,	



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#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:  Client:  Personnel:  Purge/Sample Depth:	Project Number:  Date: 03/08/22  Well ID: MW-24-1-20220308

			ified Para						
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1019	13.5.26	13.65	0.062	5:02	1/3	237	24.00		
1022	5:24	14.18	0,058	3,56	81.3	241	23482	225	
1025	5.11	14.96	0.056	3.17	46.7	254	23.82	1	
1028	5:13	14.95	0.056	2.75	44.4	255	23.82		
1031	5.05	14.64	9.056	2,71	42.0	255	23,80		
1034	4.93	15.60	0,053	2,40	44.6	266	23.85		
1037	5,13	17.22	0.2054	2,87	26.7	267	23.85		
1040	5,12	17.11	0,054	2,75	23.9	269	23,23		
1043	5.13	16.93	0.053	2.60	19.3	270	23.65		
1946	5.02	15.70	0,051	3.43	11,3	291	23.25		
1049	5.11	18.78	0.049	3.67	21.2	285	23.34		Fixed Slaw rate
1052	5,12	17.78	0.950	3,47	19.3	288	23.87	V	
1055		collec	ed 1	TW-24	1-1-20	22030	2		
					1.7			(2)	
				-					
				1					
			/	1/1					
			16	1					

											)	
Certified Sam	nple Inform	nation:	_					,	50	2.	/	-
Time of Sa	ample:		1055			Analyst	Signature:	1111	1	100	120	2/1/2
Instrument D	ata:					- 8						
Mar	nufacturer/N	lodel:	Hori	64-45	2							
	Serial No	. Unit:	204 G			Serial No.	Handheld:	5W	5H5	1)00		
Calibr	ration Date	Time:	03/0	8/22		-			.,			_

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

### LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Upper Saddle River, NJ Office

Well Number: MW - 21 - 1 - 20220302Sample I.D.: MW - 21 - 1 - 20220302

	, (w )(( · )(-)(-)(-)
Project: D' Sin Cri S Personnel: M I J M / N / N	Date: <u>33/08/22</u> Time: <u>1019</u> Weather: <u>Claudy</u> Air Temp.: <u>42</u>
WELL DATA:  Casing Diameter:	I
PURGE DATA:  METHOD:  □ Bailer, Size: □ □ Bladder Pump ♣  □ Centrifugal Pump □ Peristaltic Pump	Z 2" Submersible Pump □ 4" Submersible Pump  Inertial Lift Pump □ Other:
☐ Teflon®  MATERIALS: Pump/Bailer: ☐ Stainless Steel ☐ PVC ☐ Other:  Pumping Rate:	☐ Teflon® Cubing/Rope: Polyethylene ☐ Polypropylene ☐ Other: ☐ Volume Pumped: ☐ 4 G € / Umber of Well Volumes Removed:
SAMPLING DATA:  METHOD: □ Bailer, Size: □ □ Bladder Pump   □ Syringe Sampler □ Peristaltic Pump □ Ineri	ubmersible Pump □ 4" Submersible Pump
MATERIALS: Pump/Bailer: ☐ Teflon® ☐ Stainless Steel  SAMPLING EQUIPMENT: ☐ Dedicated ☐ Prepared Color:  Metals samples field filtered? ☐ Yes ☐ No Method  APPEARANCE: ☐ Clear ☐ Turbid ☐ Color:  FIELD DETERMINATIONS: See attached form for field paran	d: Contains Immiscible Liquid
DUP: ☑ No ☐ Yes Name: MS/MSD: ☑ No ☐ Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re	gulatory and project protocols.  Date:



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: _ Client: _ Personnel: _ Purge/Sample Depth: _	D'ImperiO BC MHMINK	Project Number: Date: Well ID: Sample ID:	03/08/22
	Certified Parameters		

Actual Time	рН	Cert Temp (°C)	Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1229 1227 1239 1233 1233 1234 1239 1242 1245 1245 1251	5:50 5:22 5:25 5:30 5:32 5:33 5:33 5:33 5:33 5:32	12.54 12.53 12.70 13.05 13.33 13.54 13.65 13.72 13.77 13.67 13.92 011ect	0.209 0.540 0.637 0.624 0.665 0.645 0.640 0.621 0.599 0.570 5amp	7.96 3.91 3.29 3.29 3.20 3.14 3.00 2.97 2.91 2.89 2.89	33.6 241 220 149 125 78.3 78.7 61.6 42.9 35.6	289 307 289 281 281 285 287 290 295 297 297	22.21 22.20 22.20 22.20 22.20 22.20 22.20 22.19 22.19	350	

Certified Sample Information: Time of Sample: 1254	Analyst Signature:
Instrument Data:	
Manufacturer/Model: Horiba-U52	
Serial No. Unit: 20u6Yu5k	Serial No. Handheld: SWSH5DQQ
Calibration Date/Time: 03/02/22	

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### **LOW-FLOW GROUNDWATER SAMPLING FIELD DATA**

Well Number: MW-49 Sample I.D.: MW-49-20220308 Upper Saddle River, NJ Office

Project: D'Emperi G Personnel: MHM/DE	Date: <u>33/03/22</u> Time: <u>122 1</u> Weather: <u>Cloudy</u> Air Temp.: <u>50</u>
WELL DATA: Casing Diameter:	PVC Teflon® Other:el
PURGE DATA:  METHOD: □ Bailer, Size: □ Bladder Pump J	Z" Submersible Pump □ 4" Submersible Pump     Inertial Lift Pump □ Other:
MATERIALS: Pump/Bailer: Teflon®  Stainless Steel  PVC  Other:	Tubing/Rope: Teflon® Polyethylene Polypropylene
Pumping Rate: 350 Elapsed Time: 30 m/n	Other: Ot
SAMPLING DATA:  METHOD:   Bailer, Size:   Syringe Sampler   Peristaltic Pump   Inert	Juhmersihle Ruma - 7.4" Sub-sessible R
MATERIALS: Pump/Bailer:	Zubino/Rope: ☐ Teflon® Polyethylene  Dff-Site ☐ Field Cleaned d:
FIELD DETERMINATIONS: See attached form for field param	
DUP: ☑ No ☐ Yes Name: MS/MSD: ☑ No ☐ Yes Name:	
I certify that this sample was collected and handled in accordance with applicable rec	
Signature:	Date: 03/05/22



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	D'Imperio	Project Number:	
Client:	BC	Date:	03/08/22
Personnel:	MHMINE	Well ID:	MW-56
Purge/Sample Depth:	,	Sample ID:	MW-56-20220308

		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	рН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
1210	100	12 7/	0.142	8:80	1 5	05/	16.39	-	
13/8	6:29	12.83	0.150	3.65	6.5	256	16.37	200	
1324	6.30	12.84	0.149	3,56	12	257	16.35		
1327	6:30	12 35	0.150	3.56	5,2	255	16.35		
1330	6.34	12 87	0.150	3.39	5.7	247	14.35		
1333	6.35	12.22	0.151	3,22	7.7	242	16.35		
1336	6.36	12.90	0.150	3,24	13.0	237	16.35		
1339	6.36	12.97	2.146	3.14	32.0	226	16.35		
1342	6,36	12.97	0.139	3.15	42.1	221	16.35		
1345	6.32	12.97	0.136	3:10	43.5	218	16.35		
1342	6.28	12,99	0.132	3,03	38:2	211	16.35	V	
1351		pliect	50MP10		56-29	220308			
			/						
			6						
			+						

Certified Sa Time of	ample Info	rmation:	- /			Analyst	Signature:	/ac	21/h	Lan	-
Instrument	Data:										0
M	anufacture	r/Model:	Harib	na -U5	52				1 = 2 = 2		
	Serial I	No. Unit:	2046	YUTE	9	Serial No.	Handheld:	5WSF	+5 PQO		
Cali	ibration Da	te/Time:	93/	18/22							

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Upper Saddle River, NJ Office

Well Number: MW- 56 Sample I.D.: MW- 56 - スク226305

Project: D'Imperio	Date: <u>03/02/29</u> Time:
Personnel:	Weather: Sunny Air Temp.: 54
WELL DATA:  Casing Diameter: Stainless Steel S	Steel PVC Teflon® Other:  Galv. Steel PVC Teflon® Open rock of tom of Well:  ft ell Casing Other:  No Is well clean to bottom? Yes No d Cond.? (not bent or corroded) Yes No or frost heaved) Yes No
VOLUME OF WATER: Standing in well:	To be purged:
PURGE DATA:  METHOD:  □ Bailer, Size: □ Bladde □ Centrifugal Pump □ Peris	er Pump 🗷 2" Submersible Pump 🗆 4" Submersible Pump istaltic Pump 🗆 Other:
MATERIALS: Pump Bailer:	Teflon® Polyethylene Polypropylene Other:  Volume Pumped: 2,25
	pared Off-Site Field Cleaned
SAMPLING DATA:  METHOD: □ Bailer, Size: □ □ Bladder Pump □ Syringe Sampler □ Peristaltic Pump	p ≱ 2" Submersible Pump □ 4" Submersible Pump  □ □ Inertial Lift Pump □ Other:
MATERIALS: Qump/Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated P Metals samples field filtered? Pes Mo	☐ Teflon® Polyethylene  Prepared Off-Site ☐ Field Cleaned
	olor: Contains Immiscible Liquid
FIELD DETERMINATIONS: See attached form for fi	ield parameter data.
DUP: No Yes Name: MS/MSD: No Yes Name:	
I certify that this sample was collected and handled in accordance with a	applicable regulatory and project protocols.
Signature:	Date: <u>93/36/22</u>



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: _ Client: _ Personnel: _ Purge/Sample Depth: _	D'Imperio BC MHM/ME	Project Number: Date: Well ID: Sample ID:	03/08/22 Mu- OBW-62
	Certified Parameters		

		Cert	ified Paraı				20.25	and the second	
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1402	6.22	12.44	0.059	9.19	6.2	240	15.98		9
1411	5.46	12,67	0.059	3.95	6.6	226	15.98	200	
414	5,29	12,57	0.057	3,07	76.5	311	15.98		
14/7	5.02	12.43	0.059	2.91	179	326	15,99	i	
1420	4.88	12.31	0.060	2.92	181	332	15.99		
14 23	4.79	12.32	0.062	3.00	171	334	15,99		
1426	4.76	12,32	0,063	2.95	117	331	15:98		
1429	4.75	12.33	0.063	2.95	93.2	330	15.99		
1432	4.75	12.33	0.063	3,03	80.1	330	15.98		
1435	4.74	12.34	2.063	2.94	63:4	331	15,98		
1438	4.73	12.34	0.063	2.87	54.5	331	15.98		
1441	4.75	12.36	0.064	3.02	47.5	330	15.96		
1949	4,69	12.56	0,063	2.91	31.4	335	15,92		
1448	4.69	12.64	0.063	2,85	22.3	33 7 33 9	15,92	11/	
451	4.62	12.70	0.062	2.30	12.3	343	15.83	W/	
454	4.62	-			2-205	2030			
751	1	Colle	0	34-6	X - X 03	Q () 3U	<b>6</b> ——		
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				7/	1	111			
			///	//	$\rightarrow$	///			
			7		1//	$\leftarrow$			
			/	-	/// //				
			·		10 /				
					- /				
		-							

Certified Sample Information: Time of Sample: Instrument Data: Manufacturer/Model: Serial No. Unit: Calibration Date/Time:	1457 Horiba - 452 2046 Yusk	Analyst Signature: Serial No. Handheld:		<b>W</b>

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### **LOW-FLOW GROUNDWATER** SAMPLING FIELD DATA

Well Number: 98W-62 Sample I.D.: 98W-62-20229398

Opper Saudie River, No Office	Sample I.D., UDV - 62 NONA
Project: D'Imperi 2 Personnel:	Date: <u>03/08/32</u> Time: <u>140°</u> Weather: <u>50/11/4</u> Air Temp.: <u>53</u>
WELL DATA:  Casing Diameter:  Intake Diameter:  DEPTH TO: Static Water Level:  DATUM:  Top of Protective Casing  CONDITION:  Is Well clearly labeled?  Is Prot. Casing/Surface Mount in Good Cond.? (In Does Weep Hole adequately drain well head?  Is Concrete Pad Intact? (not cracked or frost head is Padlock Functional?  VOLUME OF WATER:  Standing in well.	OVC Teflon® Other:    \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \
PURGE DATA:  METHOD:  □ Bailer, Size: □ Bladder Pump & □ Centrifugal Pump □ Peristaltic Pum	☑ 2" Submersible Pump ☐ 4" Submersible Pump  □ Inertial Lift Pump ☐ Other:
	Teflon® Polyethylene Polypropylene Other: where of Well Volumes Removed: Site Field Cleaned
SAMPLING DATA:  METHOD:   Bailer, Size:   Syringe Sampler   Peristaltic Pump   Inert	ubmersible Pump □ 4" Submersible Pump ial Lift Pump □ Other:
MATERIALS: Pump/Bailer: Teflon® Stainless Steel  SAMPLING EQUIPMENT: Dedicated Prepared Compared Compa	t: Contains Immiscible Liquid
DUP: No Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re	
Signature:	Date: 03/08/22



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Pro	oject Name:	DITO	perio			Proje	ect Number:		
Client: BC							Date:		22
l	Personnel		1/1/		•		OBW-63		
Purge/Sar	mple Depth:		7-7				Sample ID:	OBW 63-	20220308
		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	рН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
: [-1:5	2 111	3 4 9	0.000	10.15	0.00	200	13 20		
1513	5.41	12.72	0.029	7.61	62.9	307	13.73	350	
1519	5,34	12.81	0.089	5:74	204	309	13.75	)	
1522	5,14	12.41	3.079	7.15	(0,0)"	300	13.20		
1525		EWDT.		A		7 0	12.00		
1828	4,19	13,44	0.077	5.62	"0.0"	281	13.00		
1531	4,70	13.16	0.077	5.75	100001	289	13.28		
1534	44 4	Empty	Haribe	7	1 00 /	300	1.3 0		
137	4.76	13.13	0.079	5:26	176	303	13.23		
1643	4.69	13.31	0.079	5.72	209	307	13.78		
1846	4.62	13.33	01020	5.63	146	3/1	13.76		
1849	4.69	13.32	0.080	5,00	121	312	13.76		
1552	4,69	13.30	0.000	4.66	III	314	13.76		
1555	4.70	13.26	0.080	4.36	107	315	13.76		
1558	4.71	13.04	0.079	4.66	112	315	13.76		
1601	4.71	12.72	2.019	4.40	107	317			
1604	24.60	Empty		150	22.2	220	12 22		
1607	4.60	13.61	0.079	6.60	31.0	320	13.82		
1613	4.60	13.42	2.080	6.62	22.6	333	13.82		
1616	(477	Calle			BW-2				
				/					
									F

Certified Sample Information: Time of Sample:	1616	Analyst Signature:
Instrument Data:		
Manufacturer/Model:	Horiba - 452	
Serial No. Unit:	2046445K	Serial No. Handheld: 5 W5 H.5 D00
Calibration Date/Time:	03/02/22	

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### **LOW-FLOW GROUNDWATER SAMPLING FIELD DATA**

Upper Saddle River, NJ Office

Well Number: QBW - 63
Sample I.D.: QBW - 63 - 2022 0308

Date: Q3/38/20 Time: 1513 D'Imperio Project:

Personnel:	Weather: SUMIY	Air Temp.: _5 /
DEPTH TO: Static Water Level: 13.65 ft Bottom DATUM: Top of Protective Casing Top of Well C CONDITION: Is Well clearly labeled? Yes No Is Prot. Casing/Surface Mount in Good Co Does Weep Hole adequately drain well he Is Concrete Pad Intact? (not cracked or fro Is Padlock Functional? Yes No.26 Is Inner Casing Properly Capped and Ven	asing □ Other: Is well clean to bottom? ◢ Yes □ Nond.? (not bent or corroded) ◢ Yes □ Noot theaved) ◢ Yes □ No If NA □ Is Inner Casing Intact? □ Y	lo No
	ump 🌌 2" Submersible Pump 🔲 4" So tic Pump 🔲 Inertial Lift Pump 🖵 Other:	
MATERIALS: Pump/Bailer: Stainless Steel PVC Other: Pumping Rate:	Volume Pumped: 3.75 get Number of Well Volumes Removed:	Teflon® Polyethylene Polypropylene Other:
SAMPLING DATA:  METHOD:   Bailer, Size:   Syringe Sampler   Peristaltic Pump	2" Submersible Pump □ 4" Submersil Inertial Lift Pump □ Other:	ole Pump
Metals samples field filtered?	pared Off-Site Field Cleaned Method:  Tr:   Contains Immiscible Liquid parameter data.	Teflon® Polyethylene  uid
DUP : ✓ No ☐ Yes Name: MS/MSD : ✓ No ☐ Yes Name:		
I certify that this sample was collected and handled in accordance with app		
Signature:	Date: 03/08/22	_
And the state of t		

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: D¹ Imperio Client: BC Personnel: MHM/VL  Purge/Sample Depth:			,		27/2				
Actual	<del></del>	Certi Temp	ified Parar Cond	meters DO	Turbidity	ORP	DTW	Pumping Rate	

		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
			V- 10	100 880 MW	.00.		\. '	A Cord Compy Con Sets &	in property and the state of th
837	9.07	11.65	0.137	2.37	17.7	192	15,04	250	
840	8,50	11,23	0.137	2110	14.3	201	14.66	250	
843	8.21	11,24	0.136	1.79	19.9	204	14.66		
846 849	7.78	11,44	0.133	1.60	19.8	201	14.66		
852	7,53	11.69	9.131	1.55	15.7	196	14.67		
855	2,33	11.18	0,131	1.58	14.4	192	14.67		
852	7,24	11,58	0.123	1.58	15,1	128	14.67		
901	6.98	11.98	0:111	1.77		187	14.67		
904	6.75	11.97	04103	1,93	12,5	188	14.67		
907	6.56		0,097	2.14	2.4	197	14.67	1	
910	0.50	Callec		nple	MW-		14.67		
,		Cance	201	TIPIE	p iv	0) 10	NA 0309		
4									
				1					
								1	

Certified Sample Information: Time of Sample: Instrument Data:	Analyst Signature:
Manufacturer/Model: Horrba - U52 Serial No. Unit: 2006 Y U5 K Calibration Date/Time: 03/09/22	Serial No. Handheld: SW5 HS DOO
A [ 0	

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.



#### LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Upper Saddle River, NJ Office

Well Number: Mw-55 Sample I.D.: Mw-55-20220309

Project:		I
Stainless Steel   PVC   Teflon®   Other:   Intake Diameter:   PVC   Teflon®   Other:   Intake Diameter:   PVC   Teflon®   Other:   Other		Date: <u>03/39/22</u> Time: <u>837</u> Weather: <u>Cloudy   Rain</u> Air Temp.: <u>38</u>
PURGE DATA:  METHOD:	Casing Diameter:    Stainless Steel	☑ PVC □ Teflon® □ Open rock ell:ft □ Other: ull clean to bottom? ☑ Yes □ No not bent or corroded) ☑ Yes □ No I Yes □ No aved) ☑ Yes □ No I Is Inner Casing Intact? □ Yes □ No ☑ Yes □ No
MATERIALS: Pump Bailer: Stainless Steel PVC	PURGE DATA:	2" Submersible Pump □ 4" Submersible Pump
METHOD: Bailer, Size: Bladder Pump 2" Submersible Pump 4" Submersi	MATERIALS: Pump Bailer: Stainless Steel PVC Other: Pumping Rate: 250 Elapsed Time: 30m/n Was well Evacuated? Yes No No	Tubing/Rope: Polyethylene Polypropylene Other:
SAMPLING EQUIPMENT: Dedicated Prepared Off-Site Field Cleaned  Metals samples field filtered? No Method:  APPEARANCE: Clear Turbid Color: Contains Immiscible Liquid  FIELD DETERMINATIONS: See attached form for field parameter data.  DUP: No Yes Name:  MS/MSD: No Yes Name:  I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.	Bladder Pump & 2" S	Submersible Pump □ 4" Submersible Pump rtial Lift Pump □ Other:
MS/MSD: No Pes Name:	SAMPLING EQUIPMENT: Dedicated Prepared Metals samples field filtered? Yes You No Method APPEARANCE: Yes Clear Turbid Color:	Off-Site Field Cleaned  d:  Contains Immiscible Liquid
	MS/MSD: No Yes Name:	regulatory and project protocols.



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	ject Name: Client: Personnel: nple Depth:	MH	perio M/ <i>NR</i>			Proj - -	ect Number: Date: Well ID: Sample ID:	03/09/ 22 MW-59	
Actual Time	рН	Cert Temp (°C)	ified Parai Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
30 33 36 39 42 45 45 45 57 90	6,59 5,88 5,61 5,61 5,35 5,35 5,35 5,32 5,22	11.97 12.08 11.97 12.14 12.52 12.44 12.56 12.69 12.70 12.66 12.66 12.66	0.098 0.097 0.093 0.090 0.087 0.082 0.072 0.074 0.071 0.069	7007 5,97 6,22 6,13 6,05 6,21 6,25 6,43 6,47 6,57	9.3 8.0 14.3 12.9 10.9 2.6 7.7 7.4 7.3 7.5 7.1	230 256 266 266 273 273 273 273 273 284 290 290 297 2-2022	11.76 11.75 11.76 11.75 11.75 11.75 11.75 11.75 11.75	350	
rtified (	Sample In	formation							
Time o	of Sample: ot Data: Manufactu	rer/Model: I No. Unit:	1003 Horib	18 - U5 5445 K 199/22	2		Signature:	_s wsHsD	000

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Upper Saddle River, NJ Office

Well Number: MW - 59Sample I.D.: MW - 59 - 20220309

opper Saudie Niver, No Office	Cample i.b.: 7/10 97 2020
Project: D'ImperiO Personnel:	Date: <u>03/09/22</u> Time: <u>730</u> Weather: <u>Cloudy/Re/n</u> Air Temp.: <u>3</u> &
WELL DATA:  Casing Diameter:  Intake Diameter:  DEPTH TO: Static Water Level:  DATUM:  Top of Protective Casing  CONDITION:  Is Well clearly labeled?  Does Weep Hole adequately drain well head?  Is Concrete Pad Intact? (not cracked or frost he Is Padlock Functional?  You would be and you will be and y	el
PURGE DATA:  METHOD:  □ Bailer, Size: □ □ Bladder Pump □ Centrifugal Pump □ Peristaltic Pu	2" Submersible Pump
MATERIALS: Pump Bailer: Stainless Steel PVC Other: Pumping Rate: 250 Was well Evacuated? Yes No PURGING EQUIPMENT: Dedicated Prepared Of	Teflon® Polyethylene Polypropylene Other: Iumber of Well Volumes Removed: Field Cleaned
SAMPLING DATA:  METHOD: □ Bailer, Size: □ □ Bladder Pump ∠ 2" 5 □ Syringe Sampler □ Peristaltic Pump □ Ine	Submersible Pump □ 4" Submersible Pump ertial Lift Pump □ Other:
MATERIALS: Pump Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared Metals samples field filtered? Yes No Metho APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field para	od: Contains Immiscible Liquid
DUP:   No Yes Name:  MS/MSD:  No Yes Name:  I certify that this sample was collected and handled in accordance with applicable	
Signature: ////////////////////////////////////	Date: 03/09/22



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name: Client: Personnel: Purge/Sample Depth:	BC MHM/WE		Project Number:  Date: 03/09/22  Well ID: MW-28-1  Sample ID: MW-28-1-20220309				
Actual	Certified Parameters	OPP	DTM	Dumping Bata			

		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	Hq	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
		, ,		, , ,		, , , ,	Λ		Company and by an Experience Street and Experience
1104	5:05	11.89	0.040	7.90	304	309	29.19	200	
1107	4.62	12.44	0.039	6.95	41.9	344	29,20	300	
1110	4.60	13.82	0.032	6.92	40,3	334	29,20		
1113	4.60	14:00	2.036	6.97	33,0	339	29,20		
1116	4.59	15,00	0.036	6.92	22.8	342	29.20		
1119	4,59	1518	0.035	6.59	17,0	353	29.20		
1122	4.60	15,19	0.035	6.60	10.2	354	29,20		
1125	4.59		0,035	6.50	8.7	355	29.20		
1128	4.58	15,40	0.034	6.63	6.6	357	29,20		
1131	4.60		0.034	6,57	5,7	358	29.20		
1134	4.59	15,56	0,035	6.65	3,7	361	29,20	1	
1137	4.59	15.55	01035	6.66	4,0	362	29,20		
1140		Colle	ct oa	mple	JUW-2	8-1-20	2000	/	
			'/		-,				

Certified Sample Information:	2
Time of Sample: 11 40	Analyst Signature:
nstrument Data:	
Manufacturer/Model: Horiba- U52	
Serial No. Unit: 2006 Yu 56	Serial No. Handheld: 5W5H5D00
Calibration Date/Time: 03/09/22	
Are low-flow parameters subject to field lab certification?	No (not required for CERCLA sites or sites outside of N.I.)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### **LOW-FLOW GROUNDWATER SAMPLING FIELD DATA**

Upper Saddle River, NJ Office

Well Number: MW - 28 - 1 Sample I.D.: MW - 28 - 12022 030 9

Project: D'Imperio Personnel:	Date: <u>03/09/22</u> Time: <u>1104</u> Weather: <u>Cloudy</u> Air Temp.: <u>40</u>
Intake Diameter:    Static Water Level: 29.16   ft   Bottom of DATUM:   Top of Protective Casing   Top of Well Casing CONDITION:   Is Well clearly labeled?   Yes   No   Is Prot. Casing/Surface Mount in Good Cond Does Weep Hole adequately drain well head is Concrete Pad Intact? (not cracked or frost	s well clean to bottom?
PURGE DATA:  METHOD:  □ Bailer, Size: □ Bladder Pum □ Centrifugal Pump □ Peristaltic	p
MATERIALS: Pump/Bailer: Teflon® Stainless Steel PVC D Other:	Teflon® Polyethylene Polypropylene Other: Number of Well Volumes Removed:
SAMPLING DATA:  METHOD:   Bailer, Size:   Bladder Pump   Syringe Sampler  Peristaltic Pump	2" Submersible Pump □ 4" Submersible Pump Inertial Lift Pump □ Other:
Metals samples field filtered? ☐ Yes ∠☐ No Me	red Off-Site Field Cleaned Ethod:  Contains Immiscible Liquid  arameter data
DUP:   No  Yes Name:  MS/MSD:  No Yes Name:  I certify that this sample was collected and handled in accordance with applica	. <u> </u>
Signature:	- Date: <u>03/09/22</u>

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	D' Imperio	Project Number:
Client: _	Вс	Date: 03/09/22
Personnel:	MHAJAK	Well ID: 10-28-2
Purge/Sample Depth: _		Sample ID: MW-28-2- 20220309

Actual Time pH Temp Cond (ms/cm) (mg/L) Turbidity (NTU) ORP (mV) (ft) Pumping Rate (mL/min) Comments    115.0		T	Cert	ified Para	meters					
Time pH (°C) (mS/cm) (mg/L) (NTU) (mV) (ft) rumping Rate (mL/min) Comments  1150. 5.35 11.89 0.111 6.16 17.2 46 29.49  1153 6.06 12.34 9.125 1.29 22.6 -13 29.42  1159 6.32 12.42 9.132 0.413 22.5 -40 29.42  1202 6.43 12.74 9.141 0.00 8.0 -50 29.42  1205 6.52 13.06 0.142 0.00 5.9 -57 29.42  1211 6.59 13.67 0.144 0.00 2.9 -72 29.42  1217 6.63 13.71 0.146 0.00 1.6 -79 29.42  1217 6.63 13.71 0.146 0.00 1.6 -79 29.42  12 20 6.66 13.79 0.145 0.00 1.4 - 82 29.48	Actual					Turbidity	ORP	DTW	Dumping Date	
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	111121000000000000000000000000000000000	На					200000000000000000000000000000000000000	111111111111111111111111111111111111111		Commente
$\begin{array}{cccccccccccccccccccccccccccccccccccc$			( - /	(,	(g/ _ )	(1110)	(1110)	(11)	(11112/111111)	Comments
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1150	5,35	11.89	0.111	6.16	122	46	29.40		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$	1153							29.48	250	
1159 6.32 12.42 0.13 22.5 -40 29.42 1202 6.43 12.74 0.141 0.00 8.0 -50 29.42 1205 6.52 13.06 0.142 0.00 5.9 -57 29.48 1208 6.53 13.48 0.143 0.00 4.3 -65 29.48 1211 6.59 13.67 0.144 0.00 2.9 -72 29.48 1214 6.62 13.66 0.145 0.00 2.0 -76 29.48 1217 6.63 13.71 0.146 0.00 1.6 -79 29.48 1220 6.66 13.79 0.145 0.00 1.4 -82 29.48	1156	6,28							1	
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			12.42					200		
$\begin{array}{c ccccccccccccccccccccccccccccccccccc$			12.74	01141	0,00	8.0				
1208 6.53 13.48 0.143 0.00 4.3 -65 29.48  1211 6.59 13.67 0.144 0.00 2.9 -72 29.48  1214 6.62 13.66 0.145 9.00 2.0 -76 29.48  1217 6.63 13.71 9.146 0.09 1.6 -79 29.48  1220 6.66 13.79 0.145 0.00 1.4 -82 29.48			13.06	0,142	0.00	5.9	-57			
12.17 6.63 13.71 0.146 0.00 1.6 -79 29.48 12.20 6.66 13.79 0.145 0.00 1.4 -82 29.48				0,143	0,00	4.3	-65			
12.17 6.63 13.71 0.146 0.00 1.6 -79 29.48 12.20 6.66 13.79 0.145 0.00 1.4 -82 29.48					0.00	2.9	-72			
12 17 643 13.71 0.146 0.09 1.6 -79 29.48					9.00	2.0	-76			
10.4.7		043	13,71	9,146	0,00	116				
123 Collect Sample Mw-12-2-20220309		606				1.4		29.48	<i>V</i>	
	1223		Calle	ct sa	mpie	MN-	28-2-	20220	309	
	~				,	120				
	_									
						_ =				

Certified Sample Information:				2	
Time of Sample:	1223	Analyst Signature:	May 1	Milney)	1
Instrument Data:		Analyst Signature.	a anc	COMPER,	1
Manufacturer/Model:	Horiba- 452			,	
Serial No. Unit:	2046 Yu5k	Serial No. Handheld:	SWELLA	Dag	
Calibration Date/Time:	93/09/12	Conai No. Handrield.	O WJ AJ		
_	- 112   102				

Are low-flow parameters subject to field lab certification? ☐ Yes ☐ No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

### LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Upper Saddle River, NJ Office

Well Number: Mw-28-2 Sample I.D.: Mw-28-2

- · · · · · · · · · · · · · · · · · · ·	5. 03/09/s = 1150
Project: D'ImperiO Personnel:	Date: 03/09/22 Time: 1150 Weather: Cloudy Air Temp.: 40
WELL DATA:  Casing Diameter:  Intake Diameter:  DEPTH TO: Static Water Level: 39.48 ft Bottom of W.  DATUM: Top of Protective Casing Top of Well Casing CONDITION: Is Well clearly labeled? Yes No Is wells Prot. Casing/Surface Mount in Good Cond.? (Does Weep Hole adequately drain well head? Is Concrete Pad Intact? (not cracked or frost heads Padlock Functional? Yes No ANA Is Inner Casing Properly Capped and Vented? VOLUME OF WATER: Standing in well:	
	Z" Submersible Pump □ 4" Submersible Pump     Inertial Lift Pump □ Other:
MATERIALS: Pump Bailer:  Stainless Steel PVC Other: Pumping Rate:  Stainless Steel PVC Dther: Pumping Rate:  Stainless Steel PVC Dther: Pumping Rate:  No	☐ Teflon® ☐ Toflon® ☐ Polyethylene ☐ Polypropylene
SAMPLING DATA:  METHOD: □ Bailer, Size: □ □ Bladder Pump 2 2" S □ Syringe Sampler □ Peristaltic Pump □ Iner	
MATERIALS: Pump/Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared Metals samples field filtered? Yes No Metho APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field parameters.	Contains Immiscible Liquid
DUP: No Yes Name:	
I certify that this sample was collected and handled in accordance with applicable r	egulatory and project protocols.  Date: 03/09/22
Signature:	Date. W//4/

2 Park Way, Upper Saddle River, NJ 07458 Phone: (201) 574-4700 Fax: (201) 236-1607

#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	Project Name: D'Imperio Client: BC Personnel: MHM/N/E Purge/Sample Depth:				,	ect Number: Date: Well ID: Sample ID:	03/09/2, MW-43	2 -20220309	
Actual		Temp	Gond Cond	neters	Turbidity	ORP	DTW	Pumping Rate	

Actual Time	рН	Cert Temp (°C)	fied Para Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments
1245 1248 1251 1254 1257 1303 1306 1309 1312 1315 1318	6.24 6.13 6.12 6.13 6.17 6.17 6.22 6.22 6.22 6.22 6.22	12,30 12:70 13:14 14:01 14:58 14:57 15:10	0.099 0.104 0.105 0.105 0.105 0.106 0.106 0.106	0.15 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00 0.00	193 159 115 94.1 72.0 55.0 44.4 32.1 29.2 26.7	-7 -14 -18 -21 -27 -32 -39 -49 -43 -45 MW-4	25,84 25,83 25,83 25,83 25,83 25,83 25,83 25,83 25,83 25,83 25,83	250	

Analyst Signature:
Serial No. Handheld: SW5H5D00

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

### LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Upper Saddle River, NJ Office

Well Number: MW-43 Sample I.D.: MW-43 -2032030 9

Project: D'Imper/O Personnel:	Date: <u>Q3/09/22</u> Time: <u>1245</u> Weather: <u>Cloudy</u> Air Temp.: <u>41</u>
Intake Diameter:	g    Other: well clean to bottom?
PURGE DATA:  METHOD:  □ Bailer, Size: □ □ Bladder Pump □ Centrifugal Pump □ Peristaltic P	□ 2" Submersible Pump □ 4" Submersible Pump ump □ Inertial Lift Pump □ Other:
□ Teflon®  MATERIALS: Pump Bailer: □ Stainless Steel □ PVC □ Other: □ Other: □ Pumping Rate: ②50 mL/min Elapsed Time: ③9min Was well Evacuated? □ Yes ☑ No PURGING EQUIPMENT: □ Dedicated □ Prepared O	Number of Well Volumes Removed:
SAMPLING DATA:  METHOD:   Bailer, Size:   Syringe Sampler   Peristaltic Pump   In	Submersible Pump □ 4" Submersible Pump ertial Lift Pump □ Other:
MATERIALS: Eump Bailer: Teflon® Stainless Steel  SAMPLING EQUIPMENT: Dedicated Prepare Metals samples field filtered? Yes No Method APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field particular in the color of the color o	d Off-Site Field Cleaned Contains Immiscible Liquid
DUP: No Yes Name: MS/MSD: No Yes Name:	
I certify that this sample was collected and handled in accordance with applicabl	e regulatory and project protocols.  Date: 03/05/22
	-



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	Project Name: D'Imperio Client: Br  Personnel: MHM/NE Sample Depth:						Project Number:  Date: 03/10/21  Well ID: MW-73  Sample ID: MW-73-2011031			
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments	
\$ \$0 \$ 53 \$ 54 \$ 56 \$ 59 \$ 902 \$ 905 \$ 903 \$ 911 \$ 917 \$ 920 \$ 923 \$ 924 \$ 924	12.02 12.24 12.53 12.67 12.65 12.61 12.55 12.57 12.43 12.39 12.39	13.60 13.49 13.66 13.77 13.99 14.16 14.19 14.22 14.36 14.36 14.50 Coll	0.7/3 0.893 2.87 2.189 2.52 2.16 1.74 1.40 1.47 1.37	2.94 1.23 1.25 1.25 1.21 1.29 1.56 1.62 1.10 1.23 2mple	24.5 13 7 101 80.0 57.2 46.9 39.5 31.3 23.2 15.3 10.0 6.8 MW-	-26 -57 -94 -94 -92 -29 -29 -76 -75 -72 -70 73-20	21.61 21.50 21.42 21.24 21.22 21.22 21.24 21.22 21.23 21.22 21.23 21.22 21.23	200		
nstrumen N	f Sample: t <b>Data:</b> lanufactur	er/Model: No. Unit:	9926 Harit	ba - U5 GYU5K 10/22	2		Signature:	S WS HS	D00	

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### **LOW-FLOW GROUNDWATER SAMPLING FIELD DATA**

Upper Saddle River, NJ Office

Well Number: MW-73
Sample I.D.: MW-73-2022 2310

~	
Project: Dimperio Personnel: MIII/UK	Date: 03/10/22 Time: 0850 Weather: F39 Air Temp.: 37
DEPTH TO: Static Water Level: 20.40 ft Bottom of V DATUM:	el
PURGE DATA:	2" Submersible Pump □ 4" Submersible Pump  ump □ Inertial Lift Pump □ Other:
Teflon®  MATERIALS: (Pump/Bailer: Stainless Steel  PVC  Other:  Pumping Pate: 202014/000 Flapsed Time: 3200	Tubing/Rope: Polyethylene Polypropylene Other: Number of Well Volumes Removed:
SAMPLING DATA:  METHOD:   Bailer, Size:   Syringe Sampler   Peristaltic Pump   In	Submersible Pump □ 4" Submersible Pump ertial Lift Pump □ Other:
MATERIALS: Pump/Bailer: Teflon® Stainless Steel SAMPLING EQUIPMENT: Dedicated Prepared Metals samples field filtered? Yes No Meth APPEARANCE: Clear Turbid Color: FIELD DETERMINATIONS: See attached form for field par	Contains Immiscible Liquid
DUP: No Yes Name:	<u> </u>
Signature:	



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Project Name:	D' Imparts	D'Imperia	Project Number:	
Client:	Br	M-1	Date:	93/10/22
Personnel:	MHM/ NA	-	Well ID:	MW-70
Purge/Sample Depth:	7 110 7 20 3		Sample ID:	MW-79-20220310

		Certi	fied Parar	neters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
9945	9.08	13.69	0,149	426	79.4	145	14.41	250	
2948	8.42	14.91	0.123	4.00	"O.O"	3.3	14.93	200	
2951	7,72	14,37	0,105	3.41	"0.0"	67	14.93		
0954	7.47	14.40	2,093	4.23	NO.0"	103	14.93		
0957	7.19	14.38	0.083	4116	1900	118	14.93	1	
1000	6.26	14.41	0.076	4.54	646	129	14.93	1	
1003	6.65	14,44	0.076	4.47	602	131	14.93	<del></del>	
1006	6164	14,48	0,070	4.33	560	130	14.91		
1909	6.28	14.57	0.066	3.61	288	142	14.96		
1012	6.17	14.59	0.064	4.16	192	152	14.91		
1015	6.12	14.64	0.061	4.27	155	159	14.91		
1018	6.14	14.50	0.058	3,78	288	160	14.91		
1021	6.05	14.48	04054	4.03	89.5	176	14.91		
1024	6:92	14.53	0.054	4,44	36.2	182	14.91		
1927	5.96	14.58	9,054	4.30	69.4	189	14.90		
1030.	5193	14.55	0.054	4.18		194	14.90		
1033	5.92	14.58	0.054	4.00	54.3	199	14.91		
1036	5.39	1455	0.055	3.20	57.3	202	14.91		
1039	5.86	11111	0.056	4.32	45.9	294	14,91	1	
1043	5161	Call	21052	mole		0 -202			
1045		Call	201 30	Thyle	FIW-	4 111	4315		
				-					
					1				
				-					
									-

Certified Sample Information: Time of Sample:	1045	Analyst Signature:
Instrument Data:  Manufacturer/Model:	Hariba - U52	1160
Serial No. Unit:	33/19/22	Serial No. Handheld: <u>S W S H S Do o</u>

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\ \square$  No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### **LOW-FLOW GROUNDWATER** SAMPLING FIELD DATA

Well Number: MW - 70

	Upper Saddle River, NJ Office	Sample I.D.: MW-70-232	20310
Project: 1 Impres 1 Personnel: MHA//	i Imperio	Date: <u>33/10/22</u> Time: <u>99</u> 4 Weather: <u>F99</u>	45 Air Temp.: 41
WELL DATA: Casing Diameter: // Intake Diameter: // DEPTH TO: Static Water DATUM: Top of Prote CONDITION: Is Well cle Is Prot. Ca Does Wee Is Concret Is Padlock	☐ Stainless Steel ☐ Steel ☐ F ☐ Stainless Steel ☐ Galv. Steel Level: ☐ Stainless Steel ☐ Galv. Stee Level: ☐ Stainless Steel ☐ Galv. Stee Level: ☐ Stainless Steel ☐ Galv. Stee Level: ☐ Stainless Steel ☐ Galv. Steel Level: ☐ Steel ☐ Galv. Steel Level: ☐ Steel ☐ Steel ☐ Foreit Steel Level: ☐ Steel ☐ Foreit Steel ☐ Foreit Steel Level: ☐ Steel ☐ Steel ☐ Foreit Steel Level: ☐ Steel ☐ Galv. Steel Level: ☐ Steel ☐ Galv. Steel Level: ☐ Steel ☐ Galv. Steel Level: ☐ Steel ☐ Steel ☐ Foreit Steel Level: ☐ Steel ☐ Steel ☐ Steel ☐ Steel Level: ☐ Steel ☐ Steel ☐ Steel ☐ Steel Level: ☐ Steel	PVC Teflon® Other:  I PVC Teflon® Open rock ell:ft Other: Il clean to bottom? Yes No not bent or corroded) Yes No Yes No aved) Yes No Is Inner Casing Intact?	)
PURGE DATA:  METHOD:	ailer, Size: ☐ Bladder Pump 』	2" Submersible Pump □ 4" Subm	ersible Pump
MATERIALS: Rumb/Bailer  Pumping Rate: 250 n  Was well Evacuated?	Teflon® Stainless Steel PVC Other: Tellon® Stainless Steel PVC Number Stainless Steel No Number Numb	Tubing/Rope: Tef	flon® lyethylene lypropylene ner:
SAMPLING DATA:  METHOD: □ Bailer, 3 □ Syringe 3	Size: □ Bladder Pump 🗷 2" So Sampler □ Peristaltic Pump □ Inert	ubmersible Pump □ 4" Submersible F ial Lift Pump □ Other:	Pump
MATERIALS: Pump/Bailer SAMPLING EQUIPMENT: Metals samples field filtered APPEARANCE: FIELD DETERMINATIONS:	Stainless Steel  Dedicated Prepared C	Off-Site  Field Cleaned  :  Contains Immiscible Liquid	lon® yethylene •
DUP: ⊿ No □ Ye MS/MSD: ⊿ No □ Ye	s Name:		
I certify that this sample was collected Signature:	d and handled in accordance with applicable re	gulatory and project protocols.  Date: $03/10/22$	



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	oject Name: Client: Personnel:	В	mpart s	- D'I	imperi)	Proje	ect Number: Date: Well ID:	03/10/	22	
Purge/Sam			1- 1720	~			Sample ID:	7100	20220310	
Actual Time	nН	Temp	Cond	DO (mg/l)	Turbidity	ORP	DTW	Pumping Rate		

		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	рН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
	5		, , ,	( 3 )	(1110)	(1114)	(11)	(1112/11111)	Comments
1110	11.29	12.46	0,555	8.11	59.7	53	22,49		
1113	11,48	12.28	0.480	2.11	43.6	31	22.35	250	
1146	11.40	12,25	0.435	1.27	33.0	25	22,30	1	
1119	11.47	12.17	0,423	2.11	27.6	17	22.30	1	
11.22	11.47	12.18	0.422	2.06	24.0	14	22.30		
1125	11.40	12.23	0.402	1.92	15,0	10	22,30		
1128	11.28	12.27	0.376	2,02	9.4	10	22,30		
11.31	11.07	12,35	0,230	2.29	512	14	22.30		
1134	19,91	12.43	0.298	2.49	4.3	17	22.30		
1137	10.70	12,44	0.264	2.59	2.9	24	22.30	1,	
1140.	10:50	12.55	0,238	4.03	114	31	22.30	4	
1143		Calle	et sen	nole /	MW-71	- 20 22	0310		
				/		-1			
						,			
						-			

Certified Sample Information: Time of Sample: 1143 Instrument Data:	Analyst Signature:
Manufacturer/Model: Horiba - U52	
Serial No. Unit: 2046 Y 456 Calibration Date/Time: 03/10/22	Serial No. Handheld:S WS HS DOO
•	

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### **LOW-FLOW GROUNDWATER SAMPLING FIELD DATA**

Upper Saddle River, NJ Office

Well Number: MW- 7/ Sample I.D.: MW- 7/ - 2012 9310

1217-2000	
Project: D'Imparts D'Imperio Personnel: MHU/IK	Date: <u>03/19/12</u> Time: <u>1110</u> Weather: <u>Partly Claudy</u> Air Temp.: <u>44</u>
WELL DATA: Casing Diameter: ☐ ☐ Stainless Steel ☐ P	□ PVC □ Teflon® □ Open rock ell:ft □ Other: ell clean to bottom? □ Yes □ No ent bent or corroded) □ Yes □ No ent Yes □ No
PURGE DATA:  METHOD:  □ Bailer, Size: □ Bladder Pump □ Peristaltic Pump	2" Submersible Pump □ 4" Submersible Pump  □ Inertial Lift Pump □ Other:
MATERIALS: Pump/Bailer: B Stainless Steel PVC Other: Pumping Rate: 250 mL/m/n Elapsed Time: 30m/n Was well Evacuated? Pves No Nu PURGING EQUIPMENT: Dedicated Prepared Off-	ımber of Well Volumes Removed:
SAMPLING DATA:  METHOD: Bailer, Size: Bladder Pump 2 2" S Syringe Sampler Peristaltic Pump 1 Iner	ubmersible Pump □ 4" Submersible Pump tial Lift Pump □ Other:
MATERIALS: Primo Bailer: Teflon® Stainless Steel  SAMPLING EQUIPMENT: Dedicated Prepared Compared Comp	d: Contains Immiscible Liquid
DUP: No Yes Name:	
I certify that this sample was collected and handled in accordance with applicable re	egulatory and project protocols.
Signature:	Date: <u>93/19/22</u>



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

Pro	ject Name:		mpart.	$S \mathcal{D}^{1}I$	mperio	Proje	ect Number:		
	Client:		1.4.6.6		•	_	Date:	03/10/2	2
	Personnel:		MIN	K		-	Well ID:	MW-69	
Purge/Sam	iple Depth:						Sample ID:	MW-69	20220310
								•	
		Certi	ified Parar	meters					
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments

		Cert	ified Para	meters					
Actual		Temp	Cond	DO	Turbidity	ORP	DTW	Pumping Rate	
Time	pН	(°C)	(mS/cm)	( mg/L )	(NTU)	(mV)	(ft)	(mL/min)	Comments
		1000 W			, , , ,	,y	()	(	Comments
1310	9.32	13.35	2:127	7.42	31.4	114	9.09	2	
1313	8.71	13.63	2,219	4.95	8,5	122	9.10	500	
1316	8.06	13.69	0.232	3,08	284	170	9,19	(	
1319	7.37	13.51	0.239	3,29	208	165	9.14		
13 22	7.17	13.86	0,232	3,24	189	164	9.14		
1325	6.27	13,94	0.236	3.78	144	164	9.14		
13 28	6.56	14,04	0,230	3.73	63.1	175	914		
1331	6.36	14,13	0.219	3.71	26.2	124	9.14		
1334	6.28	14.20	0.214	3.70	19.3	187	9,14		
1337	6.12	14.23	0.199	3.70	12.4	190	9.14		
1340	6.01	14.29	0.186	3.69	10.1	194	9.14		
1343	5.91	14.33	0.173	3.51	9.5	194	9.14		
1346	Ci	dicci	MING		20310		15 - 1	-	
			+1/	4P					
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				11					
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				111	111				
			/1	U	1				
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Certified Sample Information: Time of Sample: 1346	Analyst Signature:
Instrument Data:	Analyst Signature.
Manufacturer/Model: Hariba 1,52	
Serial No. Unit: 2046-Yu 56	Serial No. Handheld: 5W5H5D00
Calibration Date/Time: 03/10/22	

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ) If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### LOW-FLOW GROUNDWATER **SAMPLING FIELD DATA**

Well Number: MW-69

Upper Saddle R	
Project: Damparts Damperio Personnel: MHM/NK	Date: <u>03/10/22</u> Time: <u>1310</u> Weather: <u>sunny</u> Air Temp.: <u>46</u>
Intake Diameter: Static Water Level: 1.00 ft DATUM: Top of Protective Casing Top CONDITION: Is Well clearly labeled? Ye Is Prot. Casing/Surface Mount in Does Weep Hole adequately dr Is Concrete Pad Intact? (not cra	p of Well Casing    Other: es    No    Is well clean to bottom?    Yes    No in Good Cond.? (not bent or corroded)    Yes    No rain well head?    Yes    No acked or frost heaved)    Yes    No     No     No    No    No    No     No     No    No    No ed and Vented?    Yes    No
PURGE DATA:  METHOD:  □ Bailer, Size: □ □ Centrifugal Pump	Bladder Pump
Was well Evacuated?   Yes  No	Polypropylene Other:  Wolume Pumped: 3.3 44
SAMPLING DATA:  METHOD: □ Bailer, Size: □ □ Bladde □ Syringe Sampler □ Peristali	er Pump 💋 2" Submersible Pump 🗆 4" Submersible Pump tic Pump 🗆 Inertial Lift Pump 🗅 Other:
Metals samples field filtered? ☐ Yes 🔏 APPEARANCE: 🔏 Clear ☐ Turbid	Prepared Off-Site Field Cleaned  No Method: Color: Contains Immiscible Liquid orm for field parameter data.



#### NJ FIELD LAB ID# 02023 LOW-FLOW GROUNDWATER FIELD DATA SHEET

	ject Name: Client: Personnel:	Br MH/	mperla 11 1NK	9		Project Number:  Date: 03//0/22  Well ID: MW-24-2-1R-2022031					
Purge/Sar	nple Depth:						Sample ID:				
		Cont	fied Deve								
Actual Time	рН	Temp (°C)	Cond (mS/cm)	DO ( mg/L )	Turbidity (NTU)	ORP (mV)	DTW (ft)	Pumping Rate (mL/min)	Comments		
			2115	1 . /	17.5	,, =	0 = -9				
712	6.42	13:18	2388	0.00	12.9	-117	25,57	250			
413	260	14.11	0.226	0.00	13.4	-127	25.55				
431	6.73	14.55	0.288	0.00	3.7	-192	25,05				
424	6.85	14.09	0.228	0.00	2.4	-146	25:15				
427	6.26	13.84	2.288	0.00	1.8	-144	25.55				
430	6.87	13,79	0,288	0,00	215	-141	25,55				
433	6.27	13.85	0.286	0,00	3.3	-140	25,55				
436	6.26	14.05	0,285	0.00	3.5	737	25,55				
439	6.26	14,23	20285	0.00	3:4	-136	25,55				
442	6.90	1438	0.286	2.00	2.2	-136	25,55				
145		callec	+ Sal	pple	MW-2	4-2-R	- 202	20310			
-				/							
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	+										
								1			
									10		
		nformation	1:			g g N		11.2	16/		
	of Sample		1445			Analyst	Signature	Mileo	VIII DE		
nstrume			416	vi .							
		rer/Model	Hor	ba-u		, , , , ,		Cu110	000		
		al No. Unit Date/Time		GYU51	6	Serial No.	Handheld	:_SW5H5			

Are low-flow parameters subject to field lab certification?  $\square$  Yes  $\square$  No (not required for CERCLA sites or sites outside of NJ)

If yes, low-flow data must be accompanied by a completed "Field Calibration Record, Horiba U-52" form or equivalent.

#### LOW-FLOW GROUNDWATER SAMPLING FIELD DATA

Upper Saddle River, NJ Office

Well Number: Mw-24-2-R Sample I.D.: Mw-24-2-R-コンスン0310

Personnel:		
Casing Diameter:		Date: <u>03/19/22</u> Time: <u>142</u> Weather: <u>5wn</u> Y Air Temp.: <u>47</u>
METHOD: Bailer, Size: Bladder Pump 2 2" Submersible Pump 4" Stainless Steel 4" Dipp/Rope: Polyethylene Polypropylene Other: Pumping Rate: 250 ml min Elapsed Time: 30 min Volume Pumped: 2.5 Vas well Evacuated? Yes 7 No Number of Well Volumes Removed: Purging EQUIPMENT: Dedicated Prepared Off-Site Field Cleaned  SAMPLING DATA:  METHOD: Bailer, Size: Bladder Pump 2" Submersible Pump 4" Submersible Pump Syringe Sampler Peristaltic Pump Inertial Lift Pump Other:  MATERIALS: Vump Bailer: Teflon® Stainless Steel Stainless Steel Polyethylene  SAMPLING EQUIPMENT: Dedicated Prepared Off-Site Field Cleaned  Metals samples field filtered? Yes 7 No Method: Prepared Off-Site Field Cleaned  Metals samples field filtered? Clear Turbid Color: Contains Immiscible Liquid  FIELD DETERMINATIONS: See attached form for field parameter data.  DUP: No Yes Name: Ms/MSD: No Yes Name: Icertify that this sample was collected and handled in accordance with applicable regulatory and project protocols.	Casing Diameter:  Intake Diameter:  DEPTH TO: Static Water Level: 25.55 ft Bottom of North Condition  DATUM:  Top of Protective Casing  Top of Well Casing  CONDITION:  Is Well clearly labeled?  Is Prot. Casing/Surface Mount in Good Cond.?  Does Weep Hole adequately drain well head?  Is Concrete Pad Intact? (not cracked or frost his Padlock Functional?  Is Inner Casing Properly Capped and Vented?	eel  PVC  Teflon®  Open rock  Well: ft g  Other: well clean to bottom? Yes  No ? (not bent or corroded) Yes  No Yes  No leaved) Yes  No A Is Inner Casing Intact? Yes  No
MATERIALS:Bailer:Stainless SteelUbipg/Rope:Polyethylene Polypropylene Other:Uhipping Rate:Stainless SteelUhipping Rate:Stainless SteelUhipping Rate:Stainless SteelUhipping Rate:Stainless SteelUhipping Rate:	PURGE DATA:  METHOD:   Bailer, Size:   Bladder Pump	2" Submersible Pump □ 4" Submersible Pump
METHOD: Bailer, Size: Bladder Pump 2" Submersible Pump 4" Submersible Pump Syringe Sampler Peristaltic Pump Inertial Lift Pump Other: Teflon® Stainless Steel  SAMPLING EQUIPMENT: Dedicated Prepared Off-Site Field Cleaned Metals samples field filtered? Yes No Method: Color: Contains Immiscible Liquid FIELD DETERMINATIONS: See attached form for field parameter data.  DUP: No Yes Name: Ms/MSD: No Yes Name: Icertify that this sample was collected and handled in accordance with applicable regulatory and project protocols.	MATERIALS: Sump Bailer: Teflon®  Stainless Steel PVC Other: Pumping Rate: 250 ml/min Elapsed Time: 30 min Was well Evacuated? Yes A No	Teflon® Polyethylene Polypropylene Other: Number of Well Volumes Removed:
Stainless Steel  SAMPLING EQUIPMENT: Dedicated Prepared Off-Site Field Cleaned  Metals samples field filtered?  APPEARANCE: Clear Turbid Color: Contains Immiscible Liquid  FIELD DETERMINATIONS: See attached form for field parameter data.  DUP: No Yes Name: MS/MSD: No Yes Name: I certify that this sample was collected and handled in accordance with applicable regulatory and project protocols.	METHOD: ☐ Bailer, Size: ☐ ☐ Bladder Pump 🔏 2"	Submersible Pump □ 4" Submersible Pump ertial Lift Pump □ Other:
MS/MSD: No Yes Name:	Stainless Steel SAMPLING EQUIPMENT:  Dedicated  Prepared Metals samples field filtered?  Yes  No Meth APPEARANCE:  Clear  Turbid  Color:	Polyethylene d Off-Site Field Cleaned lod: Contains Immiscible Liquid
allala allala		
Signature: Date: O3/14/22		regulatory and project protocols.
	Signature:	Date:

# ATTACHMENT 3 Hydraulic Monitoring Data

D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report

Date: 3/8/2022 D'Imperio Property Site

Well ID	Reference Point	Depth to Water (ft.)	Screen Zone	Well Depth (ft.)	Reference Elevation (ft,ngvd)	Comments
MW-20-1-R	TOIC	18.55	Tbr	42	64.84	
20-2	TOIC	16.99	Tbr	28	64.66	
MW-20-3-R	TOIC	16.98	Tuco	63	64.92	
23-1	TOIC	18.35	Tbr	26	65.30	
23-2	TOIC	20.02	Tuco	62	65.67	
24-1	TOIC	23,78	Tbr	29	69.63	
MW-24-2-R	TOIC	25.56	Tuco	63	70.36	
MW-25-1-R	TOIC	17.11	Tbr	24	64.06	
25-2	TOIC	19.09	Tuco	60	64.61	
26-2	TOIC	28,55	Tuco	75	74.09	
MW-28-1	TOIC	29,40	Tbr	41	73.45	
MW-28-2	TOIC	29.49	Tuco	93	72.98	
MW-29-A	TOIC	18.06	Tbr	42	58.52	
MW-29-1	TOIC	19,12	Tuco	65	60.80	
MW-29-2	TOIC	19.02	Tlco	140	59.26	
MW-31-A	TOIC	16.22	Tbr	37.5	57.61	
MW-31-1	TOIC	18.48	Tuco	65	58.95	
MW-31-2	TOIC	18,59	Tlco	130	57.78	
MW-32	TOIC	14.31	Tlco	130	53.57	
MW-33-1	TOIC	13.68	Tuco	55	53.74	
MW-33-2	TOIC	13.62	Tuco	130	51.86	
MW-34	TOIC	19.86	Tuco	70	61.66	
MW-35	TOIC	20.32	Tuco	68	62.18	
MW-36	TOIC	23,46	Tuco	72	65.76	

Date: 3/8/2022

D'Imperio Property Site

Well ID	Reference Point	Depth to Water (ft.)	Screen Zone	Well Depth (ft.)	Reference Elevation (ft,ngvd)	Comments
MW-37	TOIC	25.61	Tueo	74	67.92	
MW-38	TOIC	26.10	Tuco	74	68.51	
MW-39	TOIC	24.66	O Tuco	76	67.00	
MW-40	TOIC	21.63	Tbr	47	68.18	
MW-41	TOIC	37.60	Tbr	46	78.13	
MW-42	TOIC	29.62	Tbr	44	74.80	
MW-43	TOIC	24.46	Tbr	43	71.03	
MW-44-1	TOIC	9.99	Tbr	20	58.77	
MW-44-2	TOIC	12.32	Tuco	72	58.89	
MW-45	TOIC	14.13	Tlco	125	51.18	
MW-46	TOIC	14,62	Tlco	118	52.04	
MW-47	TOIC	15.45	Tlco	125	52.56	
MW-48	TOIC	36,53		80	79.63	
MW-49	TOIC	22.18	Tuco	80	64.17	
MW-50	TOIC	12.68	Tleo	131	50.32	
MW-51	TOIC	17.06	Tleo	127	54.65	
MW-52	TOIC	18.78	Tbr	42	66.56	
MW-53	TOIC	16.66	Tlco	128	54.13	
MW-54	TOIC	11.78	Tlco	130	49.48	
MW-55	TOIC	15.09	Tlco	128	51.79	
MW-56	TOIC	16,24	Tlco	128	52.58	
MW-57	TOIC	14.44	Tlco	128	50.69	
MW-58	TOIC	15.16	Tlco	128	52.97	
MW-59	TOIC	12.49	Tlco	120	48.94	
MW-60	TOIC	13.13	Tlco	169	49.26	

Form Revised 10/29/2015

Date: 3/8/2022

D'Imperio Property Site

Well ID	Reference Point	Depth to Water (ft.)	Screen Zone	Well Depth (ft.)	Reference Elevation (ft,ngvd)	Comments
MW-64	TOIC	19.50	Tleo	177	54.22	
MW-65	TOIC	22.52	Tlco	177	56.30	
MW-66	TOIC	11,78	Tlco	172	47.79	
MW-67	TOIC	21.20	Tlco	182	57.00	
MW-68	TOIC	16.49	Tlco	130	45.61	Well level equilibrated
MW-69	TOIC	9.03	Tlco	160	43.44	Well level equilibrated
MW-70	TOIC	14.86	Tlco	165	48.35	Well level equilibrated
MW-71	TOIC	21,96	Tlco	165	55.55	Well level equilibrated
MW-72	TOIC	21.88	Tlco	185	55.21	Well level equilibrated
MW-73	TOIC	21.02	Tleo	170	53.56	Well level equilibrated
MW-74	TOIC	22.10	Tlco	170	55.15	Well level equilibrated
MW-75	TOIC	14.50	Tlco	160	46.29	Well level equilibrated
MW-76	TOIC	14.89	Tlco	160	46.33	Well level equilibrated
MW-77	TOIC	18,01	Tlco	160	49.51	Well level equilibrated
MW-78	TOIC	19.28	Tlco	160	50.98	Well level equilibrated
MW-79	TOIC	17.42	Tlco	165	48.80	Well level equilibrated
MW-80	TOIC	13.16	Tlco	160	44.61	Well level equilibrated
OBW-LC-2-E	TOIC	13.55	Tlco	128	50.25	
OBW-LC-3-E	TOIC	14.12	Tlco	128	50.51	
OBW-LC-4-E	TOIC	13.61	Tlco	128	49.78	
OBW-LC-5-E	TOIC	12.51	Tlco	128	48.52	
OBW-LC-6-E	TOIC	23,48	3 Tlco	182	59.00	
OBW-LC-7-E	TOIC	12.26	Tlco	130	43.55	
OBW-LC-8-E	TOIC	16.31	Tlco	133	47.35	
OBW-LC-9-E	TOIC	19,25	Tlco	136	50.55	

Form Revised 10/29/2015

Date: 3/8/2022

D'Imperio Property Site

Well ID	Reference Point	Depth to Water (ft.)	Screen Zone	Well Depth (ft.)	Reference Elevation (ft,ngvd)	Comments
OBW-LC-2-R	TOIC	14.32	Tlco	125	60.06	
OBW-61	TOIC	13.35	Tlco	128	49.70	
OBW-62	TOIC	15.96	Tlco	128	52.26	
OBW-63	TOIC	13.73	Tlco	128	50.04	
BR-1-E	int. tube	15.46	Tbr	45	62.58	
BR-2-E	int. tube	15.70	Tbr	46	63.03	
BR-3-E	int. tube	38.71	Tbr	52	72.24	
BR-4-E	int. tube	14.35	Tbr	46	62.70	
UC-1-E	int. tube	16.08	Tuco	99	62.66	
UC-2-E	int. tube	18.08	Tuco	83.5	63.69	
UC-3-E	int. tube	28,21	Tuco	94	72.99	
UC-4-E	int. tube	37.22	- Tuco	96	75.63	
UC-6-E	int. tube	35.71	Tuco	93	61.24	
LC-1-E	int. tube	12.17	Tlco	165	53.17	
LC-2-E	int. tube	18.23	Tlco	139.5	52.20	
LC-3-E	int. tube	17,57	Tlco	139.5	51.23	
LC-4-E	int. tube	20.61	Tlco	139.5	51.71	
LC-5-E	int. tube	16.98	Tlco	139.5	49.97	
LC-7-E	int. tube	12,74	Tlco	138	42.10	
LC-8-E	int. tube	17,33	Tlco	141	45.50	
LC-9-E	int. tube	20,92	Tlco	144	48.92	
BR-1-R	int. tube	16.89	Tbr	38.5	67.04	
BR-2-R	int. tube	17.12	Tbr	36	65.65	
BR-3-R	int. tube	17.07	Tbr	52.25	65.55	Press. On Head
UC-1-R	int. tube		Tuco	71.5	59.31	9.5 psi

Form Revised 10/29/2015

Date: 3/8/2022

D'Imperio Property Site

Well ID	Reference Point	Depth to Water (ft.)	Screen Zone	Well Depth (ft.)	Reference Elevation (ft,ngvd)	Со	mments
UC-2-R	int. tube	<b>D</b>	Tuco	84	61.54	7.5	psi
UC-3-R	int. tube		Tuco	78	59.98	8.5	psi
UC-4-R	int. tube	and the second second second	Tuco	86	62.67	8.0	psi
UC-5-R	int. tube		Tuco	92	62.95	6.0	psi
UC-6-R	int. tube		Tuco	78	62.14	9,5	psi
LC-1-R	int. tube	ALLENSANDER	Tlco	163	64.04	0.	psi
LC-2-R	int. tube		Tlco	155	61.09	13	psi
LC-3-R	int. tube	9,58	Tlco			0	psi
PZ-45	TOIC	21.35	Tuco	80	68.23	\	
PZ-46	TOIC	19.97	Tuco	80	68.23		
Water Level Ins	strument: SO	LINIST	TOIC - To	p of Inner Cas	ing T	OC - Top of C	Outer Casing
I certify that the v	vater level data	were measured	and recorded in	accordance wit	th applicable re	gulatory and pro	ject protocols.

NAME Stephen Borton

PRINTED

SIGNATURE

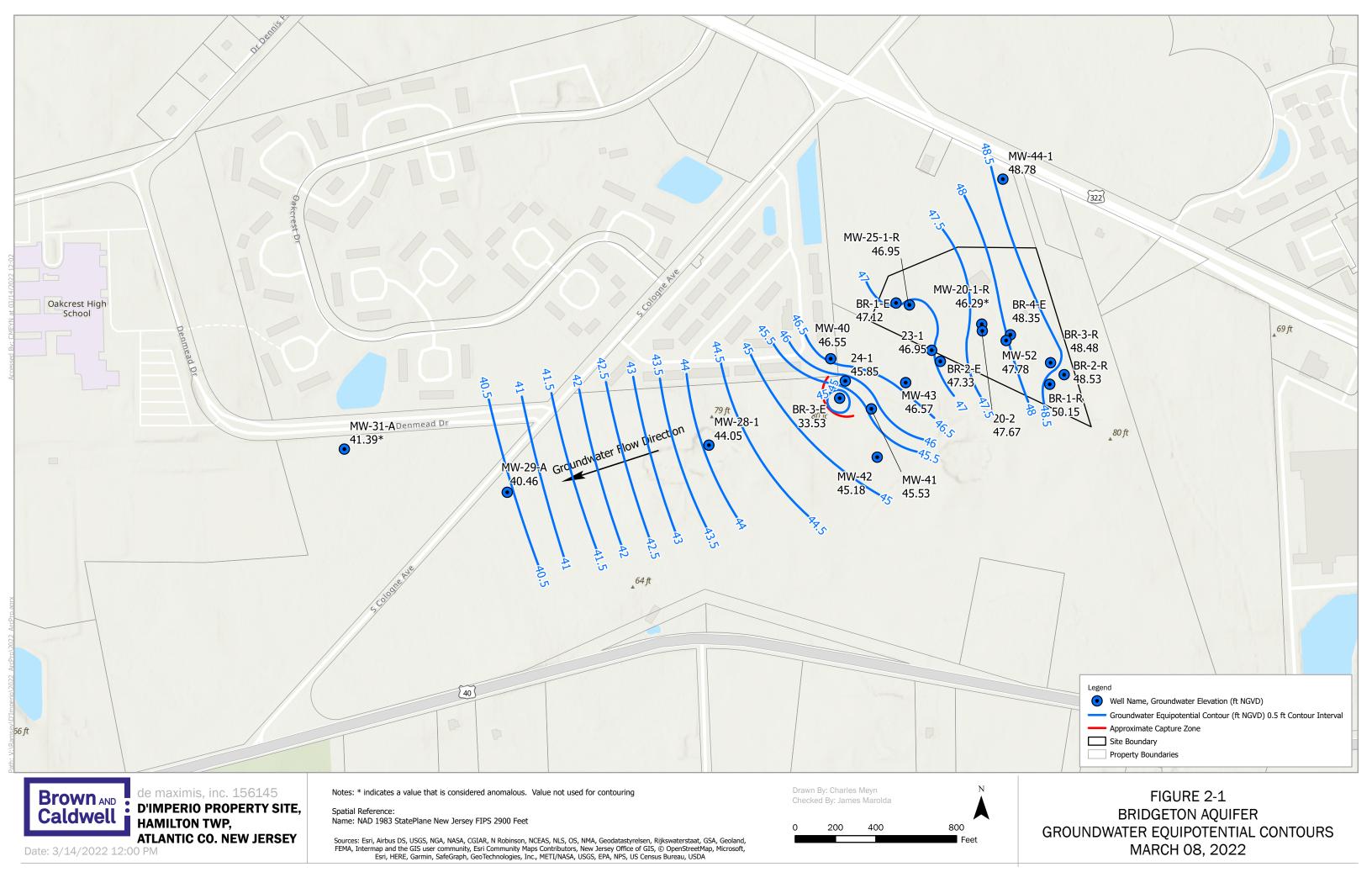
SIGNED

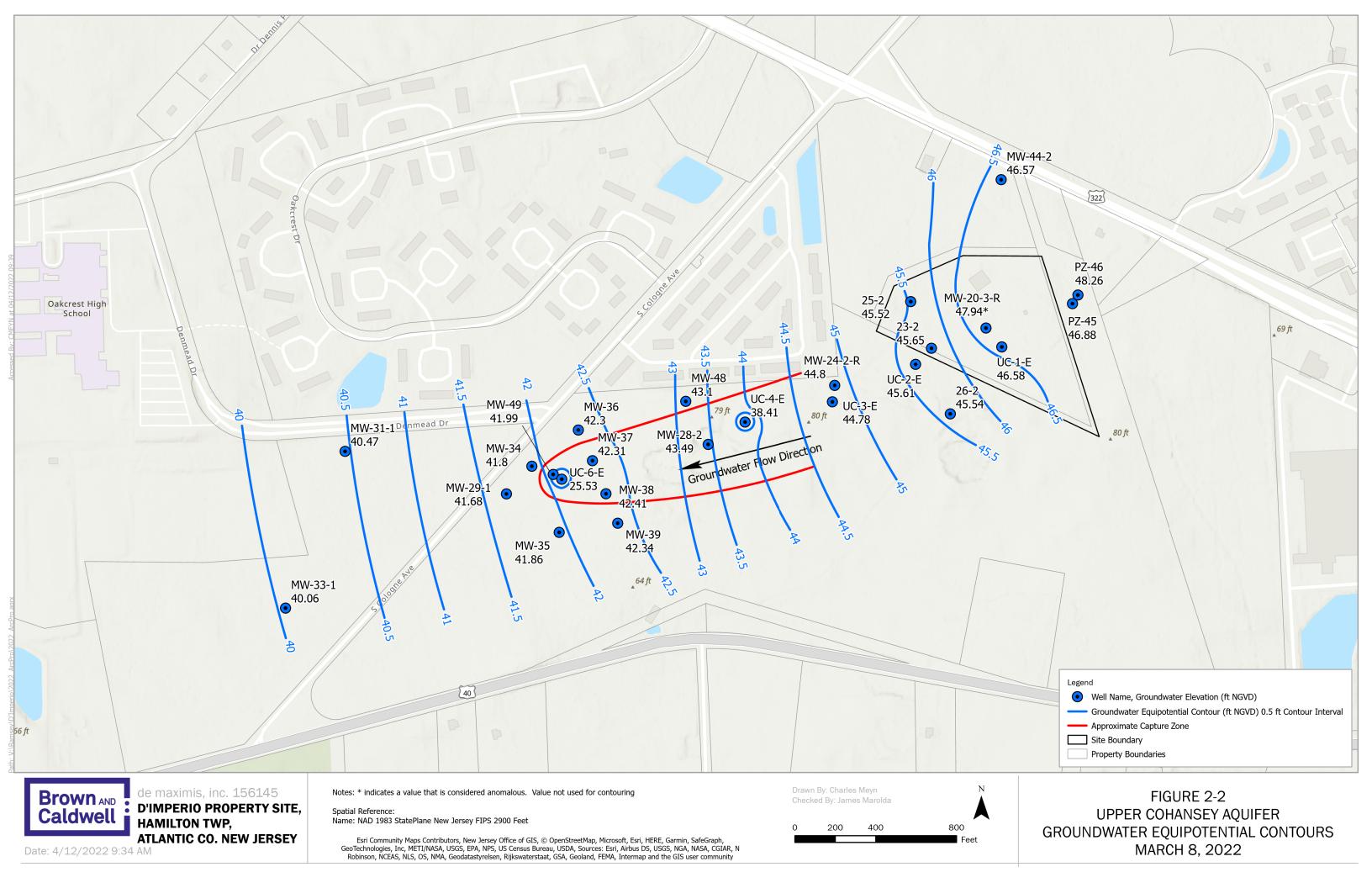
DATE <u>3/8/2022</u>

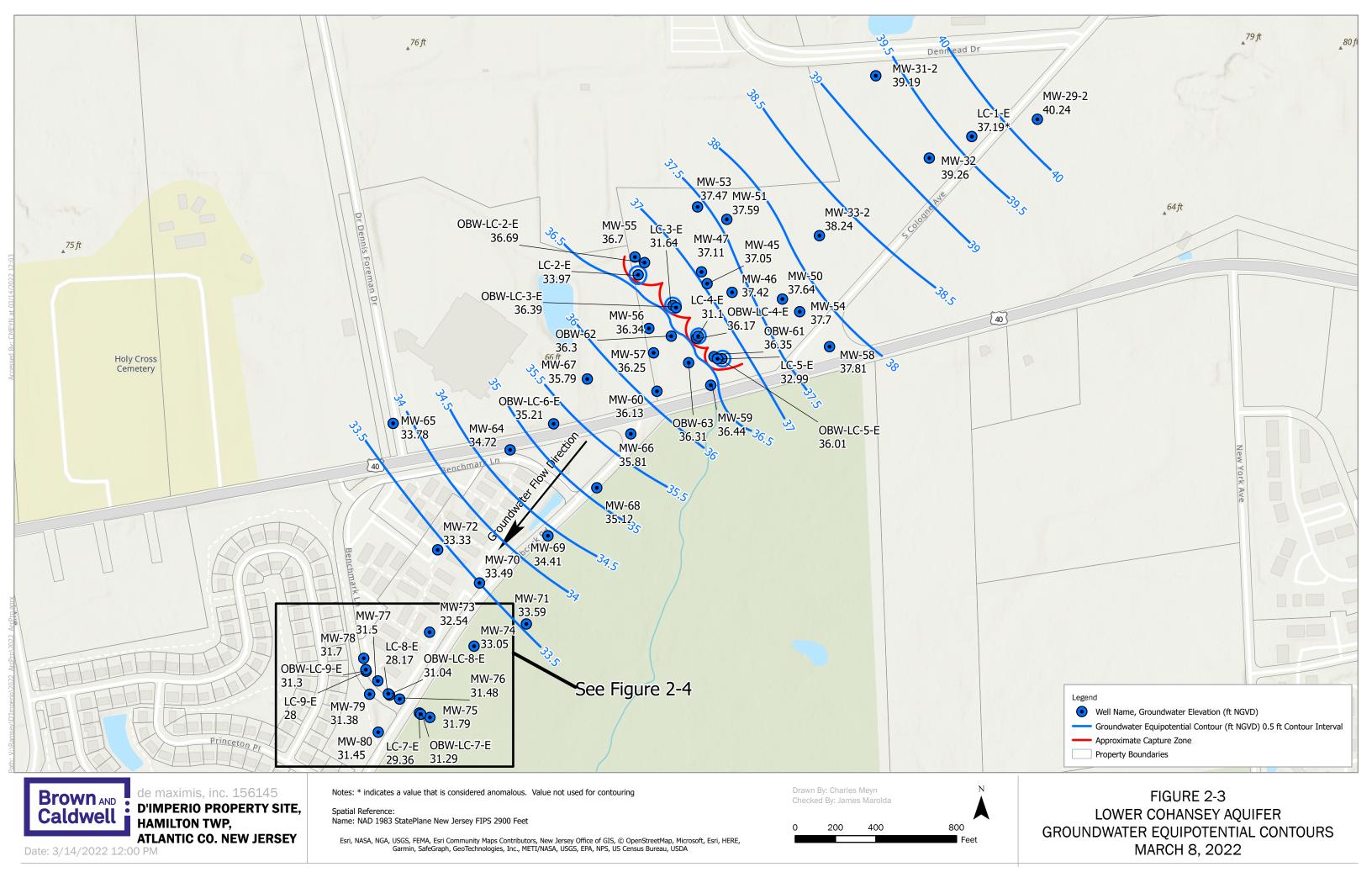
#### **ATTACHMENT 4**

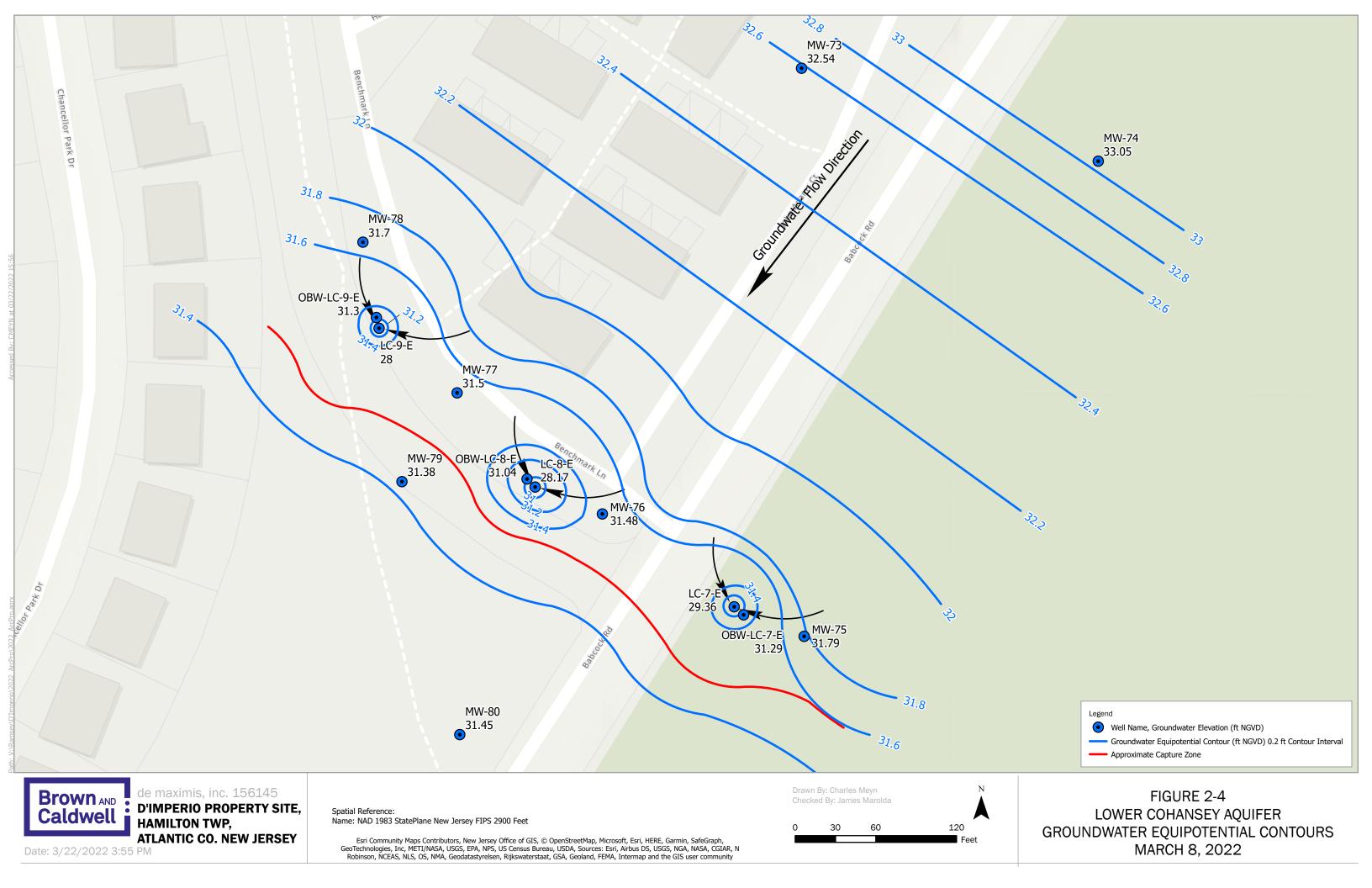
## **Groundwater Mapping Potentiometric Surface/Plume Maps**

D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report









#### **ATTACHMENT 5**

Semi-Annual (1H-2022)
Groundwater Sampling Data
Summary Tables

D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report

#### D'Imperio Property Site Semi-Annual (1H-2022)

#### LCDP - Influent, Plume and Sentinel Wells

Sample Date		3/11/2022	3/10/2022	3/10/2022	3/10/2022	3/10/2022	3/7/2022	3/7/2022	3/7/2022	3/7/2022	3/4/2022
,	D'Imperio	LCDP	L. Cohansey	L. Cohansey							
	Groundwater	Detached	Monitoring	Monitoring	Monitoring	Monitoring	Monitoring	Monitoring	Monitoring		
	Performance	Influent	LCDP Well	Sentinel Well	Sentinel Well	Field	Trip				
	Standards	LCDP-7,8,9	MW-69	MW-70	MW-71	MW-73	MW-74	MW-79	MW-80	Blank	Blank
Volatile Organic Compounds	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Benzene	5 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	100	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	(a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	5 (a)	2.4	3.2	2.6	4.3	0.39 J	0.86 J	0.65 J	0.91 J	2.5	ND
1,1-Dichloroethane	(a)	ND	0.73 J	0.50 J	0.46 J	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5 (a)	ND	3.7	2.9	1.5	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene	(a)	ND	3.4	1.5	2.0	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	(a)	ND	6.1	3.2	5.3	ND	ND	ND	ND	ND	ND
Ethylbenzene	(a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5 (a)	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND
Tetrachloroethene	5 (a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	(a)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5 (a)	1.5	2.7	2.8	0.89 J	ND	ND	ND	ND	ND	ND
Vinyl Chloride	- '	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total VOCs		3.9	19.83 J	13.5 J	14.45 J	0.39 J	0.86 J	0.65 J	0.91 J	2.5	ND
										•	
1,4-Dioxane	-	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

<sup>(</sup>a): NJDEP compounds - The sum of all (a) designated compounds may not exceed 50 ug/L.

Shaded cell with parameter concentration indicates exceedance.

Active\3082-D-Imperio\2022\Groundwater Reporting\1H2022\GW Summary Table.xls

ND: compound was not detected in the analysis.

NA: compound was not analyzed.

J: The presence of a "J" indicates that the analyte was positively identified but the value is an approximate concentration.

UJ: The presence of a "UJ" indicates that the reported result is not above the sample reporting limit and the limit is approximate.

#### D'Imperio Property Site Semi-Annual (1H-2022) LC Main Plume Influent, Sentinel/Observation Wells

Sample Date		3/11/2022	3/9/2022	3/8/2022	3/9/2022	3/8/2022	3/8/2022	3/11/2022	3/8/2022
	D'Imperio	L. Cohansey	L. Cohansey	L. Cohansey	L. Cohansey	L. Cohansey	L. Cohansey	0.11.2022	0.0.2022
	Groundwater	Main Plume	Monitoring	Monitoring	Monitoring	Observation	Observation		1
	Performance	Influent	Sentinel Well	Sentinel Well	Sentinel Well	Well	Well	Trip	Field
	Standards	LCDP-2,3,4,5	MW-55	MW-56	MW-59	OBW-62	OBW-63	Blank	Blank
Volatile Organic Compounds	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Benzene	5 (a)	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	100	ND	ND	ND	ND	ND	ND	ND	ND
Chlorobenzene	(a)	ND	ND	ND	ND	ND	ND	ND	ND
Chloroform	5 (a)	3.1	1.1	2.0	2.9	2.3	1.2	ND	2.4
1,1-Dichloroethane	(a)	0.48 J	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	5 (a)	3.1	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5 (a)	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene	(a)	2.5	ND	ND	ND	0.61 J	ND	ND	ND
1,2-Dichloropropane	(a)	3.8	ND	0.79 J	ND	2.3	ND	ND	ND
Ethylbenzene	(a)	ND	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5 (a)	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5 (a)	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	(a)	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5 (a)	0.53 J	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	-	ND	NA	NA	NA	NA	NA	NA	NA
Total VOCs		13.51 J	1.1	2.79 J	2.9	5.21 J	1.2	ND	2.4
1.4-Dioxane	-	NA	NA	NA	NA	NA	NA	NA	NA

<sup>(</sup>a): NJDEP compounds - The sum of all (a) designated compounds may not exceed 50 ug/L.

Shaded cell with parameter concentration indicates exceedance.

Active\3082-D-Imperio\2022\Groundwater Reporting\1H2022\GW Summary Table.xls

ND: compound was not detected in the analysis.

NA: compound was not analyzed.

J: The presence of a "J" indicates that the analyte was positively identified but the value is an approximate concentration.

UJ: The presence of a "UJ" indicates that the reported result is not above the sample reporting limit and the limit is approximate.

## D'Imperio Property Site Semi-Annual 1H-2022 Upper Cohansey Wells and Combined BR/UC Influent

Sample Date		03/11/22	3/10/2022	3/9/2022	3/8/2022	3/11/2022	3/10/2022
•	D'Imperio	Bridgeton -	U. Cohansey	U. Cohansey	U. Cohansey		
	Groundwater	U. Cohansey	Monitoring	Monitoring	Monitoring		
	Performance	Influent	Plume Well	Plume Well	Sentinel Well	Trip	Field
	Standards	BR/UC Inf	MW-24-2R	MW-28-2	MW-49	Blank	Blank
Volatile Organic Compounds	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Benzene	5 (a)	ND	1.2	0.42 J	ND	ND	ND
2-Butanone (MEK)	100	ND	ND	ND	ND	ND	ND
Chlorobenzene	(a)	ND	ND	ND	ND	ND	ND
Chloroform	5 (a)	8.1	ND	ND	6.1	ND	2.3
1,1-Dichloroethane	(a)	0.62 J	1.1	0.43 J	ND	ND	ND
1,2-Dichloroethane	5 (a)	0.96 J	0.66 J	1.7	ND	ND	ND
1,1-Dichloroethene	5 (a)	ND	ND	ND	ND	ND	ND
1,2-Dichloroethene	(a)	1.1	4.2	3.5	ND	ND	ND
1,2-Dichloropropane	(a)	1.7	ND	1.4	ND	ND	ND
Ethylbenzene	(a)	1.2	8.5	ND	ND	ND	ND
Methylene chloride	5 (a)	ND	ND	ND	ND	ND	ND
Tetrachloroethene	5 (a)	ND	ND	ND	ND	ND	ND
Toluene	(a)	ND	0.82 J	ND	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND
Trichloroethene	5 (a)	ND	ND	0.73 J	ND	ND	ND
Vinyl Chloride	-	ND	NA	NA	NA	NA	NA
Total VOCs		13.68 J	16.28 J	7.45 J	6.1	ND	1.2
1.4-Dioxane	_	NA	NA	NA NA	NA	NA	NA

<sup>(</sup>a): NJDEP compounds - The sum of all (a) designated compounds may not exceed 50 ug/L.

ND: compound was not detected in the analysis.

J: The presence of a "J" indicates that the analyte was positively identified but the value is an approximate concentration.

UJ: The presence of a "UJ" indicates that the reported result is not above the sample reporting limit and the limit is approximate.

Shaded cell with parameter concentration indicates exceedance.

## D'Imperio Property Site Semi-Annual 1H-2022 Bridgeton Wells and Quarterly Effluent

Sample Date		3/11/2022	3/8/2022	3/9/2022	3/8/2022	3/9/2022	03/11/22	3/9/2022	3/9/2022
	D'Imperio	Bridgeton	Bridgeton	Bridgeton	Bridgeton	Bridgeton	Treatment		
	Groundwater	Extraction	Monitoring	Monitoring	Monitoring	Monitoring	Plant		
	Performance	Well	Plume Well	Sentinel Well	X-Grad Well	Plume Well	Reinjection	Trip	Field
	Standards	BR-3E	MW-24-1R	MW-28-1	MW-41	MW-43	Effluent	Blank	Blank
Volatile Organic Compounds	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)	(ug/L)
Benzene	5 (a)	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	100	ND	NA	NA	ND	ND	ND	ND	ND
Chlorobenzene	(a)	ND	NA	NA	ND	ND	ND	ND	ND
Chloroform	5 (a)	16	34	32	5.2	ND	ND	ND	2.6
1,1-Dichloroethane	(a)	0.96 J	ND	ND	ND	3.6	ND	ND	ND
1,2-Dichloroethane	5 (a)	2.5	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	5 (a)	ND	ND	ND	ND	0.69 J	ND	ND	ND
1,2-Dichloroethene	(a)	1.4	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloropropane	(a)	1.4	ND	ND	ND	ND	ND	ND	ND
Ethylbenzene	(a)	5.0	ND	ND	ND	ND	ND	ND	ND
Methylene chloride	5 (a)	ND	NA	NA	ND	ND	ND	ND	ND
Tetrachloroethene	5 (a)	ND	ND	ND	ND	ND	ND	ND	ND
Toluene	(a)	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	200	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	5 (a)	0.35 J	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	-	ND	ND	NA	NA	NA	NA	NA	NA
Total VOCs		27.61 J	34	32	5.2	4.29 J	ND	ND	2.6
1.4-Dioxane		NA	NA	NA	NA	NA	NA	NA	NA

Method

8270 SIM

(a): NJDEP compounds - The sum of all (a) designated compounds may not exceed 50 ug/L.

ND: compound was not detected in the analysis.

NA: compound was not analyzed.

UJ: The presence of a "UJ" indicates that the reported result is not above the sample reporting limit and the limit is approximate.

Shaded cell with parameter concentration indicates exceedance.

Active\3082-D-Imperio\2022\Groundwater Reporting\1H2022\GW Summary Table.xls

J: The presence of a "J" indicates that the analyte was positively identified but the value is an approximate concentration.

# ATTACHMENT 6 Laboratory Data Analysis Reports

D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report



## **Environment Testing America**

## **ANALYTICAL REPORT**

Eurofins Lancaster Laboratories Env, LLC 2425 New Holland Pike Lancaster, PA 17601 Tel: (717)656-2300

Laboratory Job ID: 410-72267-1

Client Project/Site: D'Imperio Property Site Quarterly

For:

O & M Inc. 450 Montbrook Lane Knoxville, Tennessee 37919-2705

Attn: Mr. Tom Thomas

Barb Weyandt

Authorized for release by: 2/14/2022 7:52:36 PM

Barbara Weyandt, Project Manager

(717)556-7264

Barbara.Weyandt@eurofinset.com

·····LINKS ······

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

• QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.

- · Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
   Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Barb Weyandt

Barbara Weyandt Project Manager 2/14/2022 7:52:36 PM

## **Table of Contents**

Cover Page	1
-	3
	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	10
Lab Chronicle	11
Certification Summary	12
Method Summary	13
Sample Summary	14
Chain of Custody	15
Receipt Checklists	16

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12

13

14

## **Definitions/Glossary**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

Relative Error Ratio (Radiochemistry)

Toxicity Equivalent Factor (Dioxin)

Too Numerous To Count

Toxicity Equivalent Quotient (Dioxin)

Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points

#### **Glossary**

RER

RPD

TEF

TEQ

TNTC

RL

Abbreviation	These commonly used abbreviations may or may not be present in this report.
п	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control

Eurofins Lancaster Laboratories Env, LLC

Page 4 of 16

#### **Case Narrative**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

Job ID: 410-72267-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-72267-1

#### Receipt

The sample was received on 2/9/2022 6:15 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.2°C

#### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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## **Detection Summary**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

Client Sample ID: EFF/220209

Lab Sample ID: 410-72267-1

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
1,4-Dioxane	3.4	0.30	0.10 ug/L		8270E SIM	Total/NA

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## **Client Sample Results**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

Client Sample ID: EFF/220209

Lab Sample ID: 410-72267-1

Matrix: Groundwater

Date Collected: 02/09/22 10:37 Date Received: 02/09/22 18:15

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	3.4		0.30	0.10	ug/L		02/11/22 09:44	02/11/22 23:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Benzo(a)pyrene-d12 (Surr)	69		10 - 110				02/11/22 09:44	02/11/22 23:40	1
Fluoranthene-d10 (Surr)	93		47 - 128				02/11/22 09:44	02/11/22 23:40	1
1-Methylnaphthalene-d10 (Surr)	77		36 - 111				02/11/22 09:44	02/11/22 23:40	1

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## **Surrogate Summary**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

**Matrix: Groundwater** Prep Type: Total/NA

				Percent Surr	ogate Recovery (Acceptance Limits)
		BAPd12	FLN10	MNPd10	
Lab Sample ID	Client Sample ID	(10-110)	(47-128)	(36-111)	
410-72267-1	EFF/220209	69	93	77	

**Surrogate Legend** 

BAPd12 = Benzo(a)pyrene-d12 (Surr) FLN10 = Fluoranthene-d10 (Surr)

MNPd10 = 1-Methylnaphthalene-d10 (Surr)

Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

**Matrix: Water** Prep Type: Total/NA

			gate Recovery (Acceptance Limits)		
		BAPd12	FLN10	MNPd10	
Lab Sample ID	Client Sample ID	(10-110)	(47-128)	(36-111)	
LCS 410-223026/2-A	Lab Control Sample	94	95	76	
MB 410-223026/1-A	Method Blank	83	93	80	

BAPd12 = Benzo(a)pyrene-d12 (Surr)

FLN10 = Fluoranthene-d10 (Surr)

MNPd10 = 1-Methylnaphthalene-d10 (Surr)

Eurofins Lancaster Laboratories Env, LLC

Page 8 of 16

## **QC Sample Results**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

#### Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-223026/1-A Client Sample ID: Method Blank

**Matrix: Water** 

Analysis Batch: 223230

**Prep Batch: 223026** MB MB RL MDL Unit Dil Fac Result Qualifier Prepared Analyzed ND0.30 0.10 ug/L 02/11/22 09:44 02/11/22 16:41

мв мв

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene-d12 (Surr)	83		10 - 110	02/11/22 09:44	02/11/22 16:41	1
Fluoranthene-d10 (Surr)	93		47 - 128	02/11/22 09:44	02/11/22 16:41	1
1-Methylnaphthalene-d10 (Surr)	80		36 - 111	02/11/22 09:44	02/11/22 16:41	1
	Benzo(a)pyrene-d12 (Surr) Fluoranthene-d10 (Surr)	Surrogate         %Recovery           Benzo(a)pyrene-d12 (Surr)         83           Fluoranthene-d10 (Surr)         93	Benzo(a)pyrene-d12 (Surr) 83 Fluoranthene-d10 (Surr) 93	Surrogate         %Recovery         Qualifier         Limits           Benzo(a)pyrene-d12 (Surr)         83         10 - 110           Fluoranthene-d10 (Surr)         93         47 - 128	Surrogate         %Recovery         Qualifier         Limits         Prepared           Benzo(a)pyrene-d12 (Surr)         83         10 - 110         02/11/22 09:44           Fluoranthene-d10 (Surr)         93         47 - 128         02/11/22 09:44	Surrogate         %Recovery Benzo(a) pyrene-d12 (Surr)         Qualifier         Limits         Prepared         Analyzed           Benzo(a) pyrene-d12 (Surr)         83         10 - 110         02/11/22 09:44         02/11/22 16:41           Fluoranthene-d10 (Surr)         93         47 - 128         02/11/22 09:44         02/11/22 16:41

Lab Sample ID: LCS 410-223026/2-A **Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

**Matrix: Water** 

Analyte

1,4-Dioxane

Analysis Batch: 223230

_	SI	oike LC	S LCS				%Rec.	
Analyte	Ad	ded Resu	It Qualifier	Unit	D	%Rec	Limits	
1,4-Dioxane		1.00 0.57	9	ug/L	_	58	23 - 120	

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Benzo(a)pyrene-d12 (Surr)	94		10 - 110
Fluoranthene-d10 (Surr)	95		47 - 128
1-Methylnaphthalene-d10 (Surr)	76		36 - 111

**Prep Type: Total/NA** 

Prep Batch: 223026

Eurofins Lancaster Laboratories Env, LLC

2/14/2022

## **QC Association Summary**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

#### GC/MS Semi VOA

#### Prep Batch: 223026

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-72267-1	EFF/220209	Total/NA	Groundwater	3510C	
MB 410-223026/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-223026/2-A	Lab Control Sample	Total/NA	Water	3510C	

#### Analysis Batch: 223230

Lab Sample ID 410-72267-1	Client Sample ID  EFF/220209	Prep Type Total/NA	Matrix Groundwater	Method 8270E SIM	Prep Batch 223026
MB 410-223026/1-A	Method Blank	Total/NA	Water	8270E SIM	223026
LCS 410-223026/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	223026

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#### **Lab Chronicle**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

Client Sample ID: EFF/220209

Lab Sample ID: 410-72267-1

Matrix: Groundwater

Date Collected: 02/09/22 10:37 Date Received: 02/09/22 18:15

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3510C			223026	02/11/22 09:44	XPN5	ELLE
Total/NA	Analysis	8270E SIM		1	223230	02/11/22 23:40	UWHS	ELLE

#### **Laboratory References:**

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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## **Accreditation/Certification Summary**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
New Jersey	NELAP	PA011	06-30-22

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## **Method Summary**

Client: O & M Inc.

Project/Site: D'Imperio Property Site Quarterly

Job ID: 410-72267-1

Method	Method Description	Protocol	Laboratory
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE

#### **Protocol References:**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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## **Sample Summary**

Client: O & M Inc. Job ID: 410-72267-1

Project/Site: D'Imperio Property Site Quarterly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
410-72267-1	EFF/220209	Groundwater	02/09/22 10:37	02/09/22 18:15	

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## **Chain of Custody Record**

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lient Contact: Steve Borton	00 10 10667 Barb				ıra.Weyandt@eurofinset.com				State of Origin				Page: Page 1 of 1					
ompany D & M Inc.			PWSID						Ana	alysis	s Red	ques	ted				Job#	
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tate, Zip:		26	EEK	->	461											1	D - Nitric Acid	P - Na2O4S
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09-868-0447(Tel)		SPL	460	0001	<u>@</u>		1 2									100	H - Ascorbic Acid	T - TSP Dodecahydrate
mail. borton@oandm-inc com	WO#				6		Chloride, Sulfate	Only								11	I - Ice J - DI Water	U - Acetone V - MCAA
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D'Imperio Property Site Quarterly	41002088				0		lon	5-Day	- 1	.   2						草	L - EDA	Z - other (specify)
ite	SSOW#:				E		5	BOD,		VOCs Dioxa						200	Other:	
lew Jersey					8		8			> 4						ě		
Sample Identification	Sample Date	Sample Time	Sample Type (C=comp, G=grab)			8270E - Phenol				8270E_SIM - 1,4-Dioxane						Total Numbe	Special In	structions/Note:
以上是16mm(1500年8月1日) - 1500年1月1日日 - 1500年1月1日日 - 1500日日 - 1500日日 - 1500日日 - 1500日 - 150			Preserv	ation Code:	XX	N <sub>M</sub>	N.	N E	) A	N.	4.	編制	<b>新</b>	<b>第二</b>	框	X		100 TO 10
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Possible Hazard Identification	- 🗆				138		DISP	osar	(An	ee ma	y be a	55 es	sea n	samp 	res an	Tetam	en longer than	
Non-Hazard Flammable Skin Irritant Pois	on B Unkn	own — F	Radiologica	1	-	$\square_R$	eturn	To C	lient			Dispos	al By	Lab		- Arch	nive For	Months
Deliverable Requested: I, II (III,)V, Other (specify)					Sp	eciai	instru	uction	s/QC	Requ	ireme	nts:						
Empty Kit Relinquished by		Date:			Time			/					Method	of Ship	ment			
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Ver 06/08/2021

## **Login Sample Receipt Checklist**

Client: O & M Inc. Job Number: 410-72267-1

Login Number: 72267 List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Leakway, Christian

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ( =6C, not frozen).</td <td>True</td> <td></td>	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ( =6C, not frozen).</td <td>N/A</td> <td></td>	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	N/A	

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# **Environment Testing America**

## **ANALYTICAL REPORT**

Eurofins Lancaster Laboratories Env, LLC 2425 New Holland Pike Lancaster, PA 17601 Tel: (717)656-2300

Laboratory Job ID: 410-75935-1

Client Project/Site: D'Imperio Property Site Quarterly

For:

O & M Inc. 450 Montbrook Lane Knoxville, Tennessee 37919-2705

Attn: Mr. Tom Thomas

Barb Weyandt

Authorized for release by: 3/21/2022 8:17:49 PM

Barbara Weyandt, Project Manager (717)556-7264

Barbara.Weyandt@eurofinset.com

·····LINKS ······

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Total Access

**Have a Question?** 



Visit us at:

www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

• QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.

- · Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
- Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative.
   Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Barb Weyandt

Barbara Weyandt Project Manager 3/21/2022 8:17:49 PM 5

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# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	8
QC Sample Results	9
QC Association Summary	12
Lab Chronicle	13
Certification Summary	14
Method Summary	15
Sample Summary	16
Chain of Custody	17

#### **Definitions/Glossary**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

#### **Qualifiers**

	IS '		

Qualifier **Qualifier Description** 

Refer to Case Narrative for further detail cn

Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### Glossary

<u> </u>	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DL, RA, RE, IN	indicates a Dilution, Re-analysis, Re-extraction, or additional initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points RPD

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

Job ID: 410-75935-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-75935-1

#### Receipt

The sample was received on 3/11/2022 7:00 PM. Unless otherwise noted below, the sample arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.1°C

#### **Receipt Exceptions**

TB = TALS 75934

#### GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-233939 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

-70000-1

## **Detection Summary**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

## Client Sample ID: BR3E/220311

#### Lab Sample ID: 410-75935-1

Analyte	Rosult	Qualifier	RL	MDI	Unit	Dil Fac	D Method	Prep Type
1,1-Dichloroethane	0.96	J cn	1.0	0.30	ug/L	1	8260D	Total/NA
1,2-Dichloroethane	2.5	cn	1.0	0.30	ug/L	1	8260D	Total/NA
1,2-Dichloropropane	1.4	cn	1.0	0.30	ug/L	1	8260D	Total/NA
Chloroform	16	cn	1.0	0.30	ug/L	1	8260D	Total/NA
cis-1,2-Dichloroethene	1.4	cn	1.0	0.30	ug/L	1	8260D	Total/NA
Ethylbenzene	5.0	cn	1.0	0.40	ug/L	1	8260D	Total/NA
Trichloroethene	0.35	J cn	1.0	0.30	ug/L	1	8260D	Total/NA
1,4-Dioxane	5.8		0.31	0.10	ug/L	1	8270E SIM	Total/NA

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## **Client Sample Results**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

Client Sample ID: BR3E/220311

Date Received: 03/11/22 19:00

Lab Sample ID: 410-75935-1 Date Collected: 03/11/22 11:58

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 01:19	1
1,1-Dichloroethane	0.96	J cn	1.0	0.30	ug/L			03/16/22 01:19	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 01:19	1
1,2-Dichloroethane	2.5	cn	1.0	0.30	ug/L			03/16/22 01:19	1
1,2-Dichloropropane	1.4	cn	1.0	0.30	ug/L			03/16/22 01:19	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 01:19	1
Benzene	ND	cn	1.0	0.30	ug/L			03/16/22 01:19	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 01:19	1
Chloroform	16	cn	1.0	0.30	ug/L			03/16/22 01:19	1
cis-1,2-Dichloroethene	1.4	cn	1.0	0.30	ug/L			03/16/22 01:19	1
Ethylbenzene	5.0	cn	1.0	0.40	ug/L			03/16/22 01:19	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 01:19	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 01:19	1
Toluene	ND	cn	1.0	0.20	ug/L			03/16/22 01:19	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 01:19	1
Trichloroethene	0.35	J cn	1.0	0.30	ug/L			03/16/22 01:19	1
Vinyl chloride	ND	cn	1.0	0.20	ug/L			03/16/22 01:19	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105	cn	80 - 120			-		03/16/22 01:19	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120					03/16/22 01:19	1
Dibromofluoromethane (Surr)	103	cn	80 - 120					03/16/22 01:19	1
Toluene-d8 (Surr)	100	cn	80 - 120					03/16/22 01:19	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,4-Dioxane	5.8		0.31	0.10	ug/L		03/18/22 17:30	03/21/22 12:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Benzo(a)pyrene-d12 (Surr)	72		10 - 110				03/18/22 17:30	03/21/22 12:31	1
Fluoranthene-d10 (Surr)	85		47 - 128				03/18/22 17:30	03/21/22 12:31	1
1-Methylnaphthalene-d10 (Surr)	72		36 - 111				03/18/22 17:30	03/21/22 12:31	1

Eurofins Lancaster Laboratories Env, LLC

Page 7 of 17

## **Surrogate Summary**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

#### Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water Prep Type: Total/NA

			Percent Sur	rrogate Rec
	DCA	BFB	DBFM	TOL
Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
BR3E/220311	105 cn	96 cn	103 cn	100 cn
Lab Control Sample	105	99	102	101
Lab Control Sample Dup	106	99	102	101
Method Blank	107	97	103	99
	BR3E/220311 Lab Control Sample Lab Control Sample Dup	Client Sample ID         (80-120)           BR3E/220311         105 cn           Lab Control Sample         105           Lab Control Sample Dup         106	Client Sample ID         (80-120)         (80-120)           BR3E/220311         105 cn         96 cn           Lab Control Sample         105         99           Lab Control Sample Dup         106         99	Client Sample ID         (80-120)         (80-120)         (80-120)         (80-120)           BR3E/220311         105 cn         96 cn         103 cn           Lab Control Sample         105         99         102           Lab Control Sample Dup         106         99         102

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

#### Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Matrix: Water Prep Type: Total/NA

				Percent Surr
		BAPd12	FLN10	MNPd10
Lab Sample ID	Client Sample ID	(10-110)	(47-128)	(36-111)
410-75935-1	BR3E/220311	72	85	72
LCS 410-235304/2-A	Lab Control Sample	85	91	61
MB 410-235304/1-A	Method Blank	70	79	58

BAPd12 = Benzo(a)pyrene-d12 (Surr)

FLN10 = Fluoranthene-d10 (Surr)

MNPd10 = 1-Methylnaphthalene-d10 (Surr)

Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

#### Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-233939/7

Matrix: Water

Client: O & M Inc.

Analysis Batch: 233939

Client Sample ID: Method Blank Prep Type: Total/NA

MB MB Dil Fac Analyte Result Qualifier RLMDL Unit D Prepared Analyzed 1,1,1-Trichloroethane ND 1.0 0.30 ug/L 03/15/22 20:32 1,1-Dichloroethane ND 1.0 0.30 ug/L 03/15/22 20:32 ND 03/15/22 20:32 1,1-Dichloroethene 1.0 0.30 ug/L 1,2-Dichloroethane ND 1.0 0.30 ug/L 03/15/22 20:32 1,2-Dichloropropane ND 1.0 0.30 ug/L 03/15/22 20:32 ND 10 03/15/22 20:32 2-Butanone 0.50 ug/L Benzene ND 1.0 0.30 ug/L 03/15/22 20:32 Chlorobenzene ND 1.0 0.30 ug/L 03/15/22 20:32 Chloroform ND 03/15/22 20:32 1.0 0.30 ug/L cis-1,2-Dichloroethene ND 1.0 0.30 ug/L 03/15/22 20:32 Ethylbenzene ND 1.0 0.40 ug/L 03/15/22 20:32 Methylene Chloride ND 1.0 0.30 ug/L 03/15/22 20:32 Tetrachloroethene ND 1.0 0.30 ug/L 03/15/22 20:32 Toluene ND 1.0 0.20 ug/L 03/15/22 20:32 ND trans-1,2-Dichloroethene 1.0 0.30 ug/L 03/15/22 20:32 ND Trichloroethene 1.0 0.30 ug/L 03/15/22 20:32

MB MB

ND

Surrogate	%Recovery	Qualifier	Limits	Prepare	d Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		80 - 120		03/15/22 20:32	1
4-Bromofluorobenzene (Surr)	97		80 - 120		03/15/22 20:32	1
Dibromofluoromethane (Surr)	103		80 - 120		03/15/22 20:32	1
Toluene-d8 (Surr)	99		80 - 120		03/15/22 20:32	1

1.0

0.20 ug/L

Lab Sample ID: LCS 410-233939/4

**Matrix: Water** 

Vinyl chloride

Analysis Batch: 233939

<b>Client Sample ID:</b>	Lab Control Sample
	Prep Type: Total/NA

03/15/22 20:32

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,1,1-Trichloroethane	20.0	16.1		ug/L		80	67 - 126	
1,1-Dichloroethane	20.0	17.6		ug/L		88	80 - 120	
1,1-Dichloroethene	20.0	16.8		ug/L		84	80 - 131	
1,2-Dichloroethane	20.0	18.0		ug/L		90	73 - 124	
1,2-Dichloropropane	20.0	18.6		ug/L		93	80 - 120	
2-Butanone	250	290		ug/L		116	59 - 135	
Benzene	20.0	17.6		ug/L		88	80 - 120	
Chlorobenzene	20.0	17.2		ug/L		86	80 - 120	
Chloroform	20.0	17.1		ug/L		86	80 - 120	
cis-1,2-Dichloroethene	20.0	17.6		ug/L		88	80 - 125	
Ethylbenzene	20.0	16.7		ug/L		84	80 - 120	
Methylene Chloride	20.0	17.8		ug/L		89	80 - 120	
Tetrachloroethene	20.0	17.2		ug/L		86	80 - 120	
Toluene	20.0	16.7		ug/L		84	80 - 120	
trans-1,2-Dichloroethene	20.0	16.5		ug/L		83	80 - 126	
Trichloroethene	20.0	17.2		ug/L		86	80 - 120	
Vinyl chloride	20.0	15.1		ug/L		76	56 - 120	

Eurofins Lancaster Laboratories Env, LLC

3/21/2022

Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

#### Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-233939/4

Lab Sample ID: LCSD 410-233939/5

**Matrix: Water** 

Client: O & M Inc.

Analysis Batch: 233939

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

LCS LCS Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 105 80 - 120 4-Bromofluorobenzene (Surr) 99 80 - 120 Dibromofluoromethane (Surr) 102 80 - 120 Toluene-d8 (Surr) 101 80 - 120

**Client Sample ID: Lab Control Sample Dup** 

Prep Type: Total/NA

Analysis Batch: 233939

**Matrix: Water** 

Spike	LCSD	LCSD				%Rec.		RPD
Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
20.0	16.8		ug/L		84	67 - 126	4	30
20.0	18.0		ug/L		90	80 - 120	2	30
20.0	17.3		ug/L		87	80 - 131	3	30
20.0	18.5		ug/L		92	73 - 124	3	30
20.0	18.7		ug/L		94	80 - 120	1	30
250	293		ug/L		117	59 - 135	1	30
20.0	17.8		ug/L		89	80 - 120	1	30
20.0	17.4		ug/L		87	80 - 120	1	30
20.0	17.4		ug/L		87	80 - 120	2	30
20.0	17.7		ug/L		89	80 - 125	1	30
20.0	16.9		ug/L		84	80 - 120	1	30
20.0	17.7		ug/L		88	80 - 120	1	30
20.0	17.7		ug/L		88	80 - 120	3	30
20.0	16.8		ug/L		84	80 - 120	0	30
20.0	16.9		ug/L		84	80 - 126	2	30
20.0	17.0		ug/L		85	80 - 120	1	30
20.0	15.7		ug/L		78	56 - 120	4	30
	Added  20.0  20.0  20.0  20.0  20.0  250  20.0  20.0  20.0  20.0  20.0  20.0  20.0  20.0  20.0  20.0  20.0  20.0  20.0  20.0	Added         Result           20.0         16.8           20.0         18.0           20.0         17.3           20.0         18.5           20.0         18.7           250         293           20.0         17.8           20.0         17.4           20.0         17.7           20.0         16.9           20.0         16.8           20.0         16.9           20.0         16.9           20.0         17.0	Added         Result         Qualifier           20.0         16.8           20.0         18.0           20.0         17.3           20.0         18.5           20.0         18.7           250         293           20.0         17.8           20.0         17.4           20.0         17.7           20.0         16.9           20.0         17.7           20.0         16.8           20.0         16.9           20.0         16.9           20.0         16.9           20.0         17.0	Added         Result         Qualifier         Unit           20.0         16.8         ug/L           20.0         18.0         ug/L           20.0         17.3         ug/L           20.0         18.5         ug/L           20.0         18.7         ug/L           250         293         ug/L           20.0         17.8         ug/L           20.0         17.4         ug/L           20.0         17.7         ug/L           20.0         17.7         ug/L           20.0         17.7         ug/L           20.0         17.7         ug/L           20.0         16.8         ug/L           20.0         16.9         ug/L           20.0         16.9         ug/L           20.0         16.9         ug/L	Added         Result         Qualifier         Unit         D           20.0         16.8         ug/L         ug/L           20.0         18.0         ug/L         ug/L           20.0         17.3         ug/L         ug/L           20.0         18.5         ug/L         ug/L           250         293         ug/L         ug/L           20.0         17.8         ug/L         ug/L           20.0         17.4         ug/L         ug/L           20.0         17.7         ug/L         ug/L           20.0         17.7         ug/L         ug/L           20.0         17.7         ug/L         ug/L           20.0         16.8         ug/L         ug/L           20.0         16.9         ug/L         ug/L           20.0         16.9         ug/L         ug/L           20.0         16.9         ug/L         ug/L	Added         Result         Qualifier         Unit         D         %Rec           20.0         16.8         ug/L         84           20.0         18.0         ug/L         90           20.0         17.3         ug/L         87           20.0         18.5         ug/L         92           20.0         18.7         ug/L         94           250         293         ug/L         117           20.0         17.8         ug/L         89           20.0         17.4         ug/L         87           20.0         17.7         ug/L         89           20.0         17.7         ug/L         84           20.0         17.7         ug/L         88           20.0         17.7         ug/L         88           20.0         17.7         ug/L         88           20.0         16.8         ug/L         84           20.0         16.8         ug/L         84           20.0         16.9         ug/L         84           20.0         16.8         ug/L         84           20.0         16.9         ug/L         84	Added         Result         Qualifier         Unit         D         %Rec         Limits           20.0         16.8         ug/L         84         67 - 126           20.0         18.0         ug/L         90         80 - 120           20.0         17.3         ug/L         87         80 - 131           20.0         18.5         ug/L         92         73 - 124           20.0         18.7         ug/L         94         80 - 120           250         293         ug/L         117         59 - 135           20.0         17.8         ug/L         89         80 - 120           20.0         17.4         ug/L         87         80 - 120           20.0         17.7         ug/L         89         80 - 120           20.0         17.7         ug/L         89         80 - 120           20.0         16.9         ug/L         84         80 - 120           20.0         17.7         ug/L         88         80 - 120           20.0         17.7         ug/L         88         80 - 120           20.0         16.8         ug/L         84         80 - 120           20.0	Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           20.0         16.8         ug/L         84         67 - 126         4           20.0         18.0         ug/L         90         80 - 120         2           20.0         17.3         ug/L         87         80 - 131         3           20.0         18.5         ug/L         92         73 - 124         3           20.0         18.7         ug/L         94         80 - 120         1           250         293         ug/L         117         59 - 135         1           20.0         17.8         ug/L         89         80 - 120         1           20.0         17.4         ug/L         87         80 - 120         1           20.0         17.4         ug/L         87         80 - 120         1           20.0         17.7         ug/L         89         80 - 125         1           20.0         16.9         ug/L         84         80 - 120         1           20.0         17.7         ug/L         88         80 - 120         1           20.0         1

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	101		80 - 120

#### Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM)

Lab Sample ID: MB 410-235304/1-A

MB MB

ND

Result Qualifier

**Matrix: Water** 

Analyte

1,4-Dioxane

Analysis Batch: 235623

Client Sample ID: Method Blank Prep Type: Total/NA Prep Batch: 235304

03/21/22 06:57

Prepared

03/18/22 17:30

Dil Fac Analyzed

			_		
	MB MB				
Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
Benzo(a)pyrene-d12 (Surr)	70	10 - 110	03/18/22 17:30	03/21/22 06:57	1
Fluoranthene-d10 (Surr)	79	47 - 128	03/18/22 17:30	03/21/22 06:57	1
1-Methylnaphthalene-d10 (Surr)	58	36 - 111	03/18/22 17:30	03/21/22 06:57	1

RL

0.30

MDL Unit

0.10 ug/L

Eurofins Lancaster Laboratories Env, LLC

Page 10 of 17

## **QC Sample Results**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

#### Method: 8270E SIM - Semivolatile Organic Compounds (GC/MS SIM) (Continued)

Lab Sample ID: LCS 410-235304/2-A Client Sample ID: Lab Control Sample

**Matrix: Water** 

Analysis Batch: 235623

**Prep Type: Total/NA** Prep Batch: 235304

		Spike	LCS	LCS				%Rec.	
Analyte		Added	Result	Qualifier	Unit	D	%Rec	Limits	
1,4-Dioxane		1.00	0.479		ug/L	_	48	23 - 120	

LCS LCS Surrogate %Recovery Qualifier Limits 10 - 110 Benzo(a)pyrene-d12 (Surr) 85 Fluoranthene-d10 (Surr) 91 47 - 128 1-Methylnaphthalene-d10 (Surr) 61 36 - 111

## **QC Association Summary**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

#### **GC/MS VOA**

#### Analysis Batch: 233939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-75935-1	BR3E/220311	Total/NA	Water	8260D	
MB 410-233939/7	Method Blank	Total/NA	Water	8260D	
LCS 410-233939/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-233939/5	Lab Control Sample Dup	Total/NA	Water	8260D	

#### GC/MS Semi VOA

#### Prep Batch: 235304

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-75935-1	BR3E/220311	Total/NA	Water	3510C	
MB 410-235304/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-235304/2-A	Lab Control Sample	Total/NA	Water	3510C	

#### Analysis Batch: 235623

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-75935-1	BR3E/220311	Total/NA	Water	8270E SIM	235304
MB 410-235304/1-A	Method Blank	Total/NA	Water	8270E SIM	235304
LCS 410-235304/2-A	Lab Control Sample	Total/NA	Water	8270E SIM	235304

#### **Lab Chronicle**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

Client Sample ID: BR3E/220311

Lab Sample ID: 410-75935-1 Date Collected: 03/11/22 11:58

Matrix: Water

Date Received: 03/11/22 19:00

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	233939	03/16/22 01:19	K4WN	ELLE
Total/NA	Prep	3510C			235304	03/18/22 17:30	MD4W	ELLE
Total/NA	Analysis	8270E SIM		1	235623	03/21/22 12:31	X3ZL	ELLE

#### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

## **Accreditation/Certification Summary**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>		
New Jersey	NELAP	PA011	06-30-22		

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## **Method Summary**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
8270E SIM	Semivolatile Organic Compounds (GC/MS SIM)	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

#### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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## **Sample Summary**

Client: O & M Inc. Job ID: 410-75935-1

Project/Site: D'Imperio Property Site Quarterly

Lab Sample ID	Client Sample ID	Matrix	Collected	Received		
410-75935-1	BR3E/220311	Water	03/11/22 11:58	03/11/22 19:00		

440 75005 4

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## **Chain of Custody Record**

eurofins

Environment frating America

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Client Information  Disnit Contact: Steve Borton	Phone (69-	909-	062		ul. para We		_	nset	com		State	of Orig	gin /	1)-			Page 1 of 1		
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Ver 06/08/2021

3/21/2022



# **Environment Testing America**

## **ANALYTICAL REPORT**

Eurofins Lancaster Laboratories Env, LLC 2425 New Holland Pike Lancaster, PA 17601 Tel: (717)656-2300

Laboratory Job ID: 410-75934-1

Client Project/Site: D'Imperio Property Site

For:

O & M Inc. 450 Montbrook Lane Knoxville, Tennessee 37919-2705

Attn: Mr. Tom Thomas

Barb Weyandt

Authorized for release by: 3/22/2022 3:43:05 AM

Barbara Weyandt, Project Manager (717)556-7264

Barbara.Weyandt@eurofinset.com

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This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- · QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
- · Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
- · Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

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Barb Weyandt

Barbara Weyandt **Project Manager** 3/22/2022 3:43:05 AM

Page 2 of 26

Laboratory Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

## **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	7
Surrogate Summary	12
QC Sample Results	13
QC Association Summary	
Lab Chronicle	20
Certification Summary	22
Method Summary	23
Sample Summary	24
Chain of Custody	25
Receint Checklists	26

11

14

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#### **Definitions/Glossary**

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

#### **Qualifiers**

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G	u	IV	ı	v	U	А

Qualifier Qualifier Description

cn Refer to Case Narrative for further detail

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

**HPLC/IC** 

Qualifier Qualifier Description

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

**Metals** 

Qualifier Qualifier Description

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Glossary**

,	
Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample DLC Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

 NEG
 Negative / Absent

 POS
 Positive / Present

 PQL
 Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

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3/22/2022

Page 4 of 26

3

4

5

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41

#### **Case Narrative**

Client: O & M Inc.

Job ID: 410-75934-1 Project/Site: D'Imperio Property Site

#### Job ID: 410-75934-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-75934-1

#### Receipt

The samples were received on 3/11/2022 7:00 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 2.1°C

#### GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-233939 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### GC/MS Semi VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

#### **General Chemistry**

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

Client Sample ID: EFF/220311

Lab Sample ID: 410-75934-1

Analyte	Result Qualifie	er RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Sulfate	2.0 J	5.0	1.5	mg/L	5	_	EPA 300.0 R2.1	Total/NA
Chloride	27	2.0	1.0	mg/L	5		EPA 300.0 R2.1	Total/NA
Manganese	0.013	0.010	0.0030	mg/L	1		6010D	Total
								Recoverable
Mercury	0.16 J	0.20	0.079	ug/L	1		7470A	Total/NA

Client Sample ID: LEADBAC/220311

Lab Sample ID: 410-75934-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type	•
1,2-Dichloroethane	0.79	J cn	1.0	0.30	ug/L	1		8260D	Total/NA	
Chloroform	1.1	cn	1.0	0.30	ug/L	1		8260D	Total/NA	

Client Sample ID: BR/UC/220311

Lab Sample ID: 410-75934-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.62	J cn	1.0	0.30	ug/L	1	_	8260D	Total/NA
1,2-Dichloroethane	0.96	J cn	1.0	0.30	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	1.7	cn	1.0	0.30	ug/L	1		8260D	Total/NA
Chloroform	8.1	cn	1.0	0.30	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.1	cn	1.0	0.30	ug/L	1		8260D	Total/NA
Ethylbenzene	1.2	cn	1.0	0.40	ug/L	1		8260D	Total/NA

Client Sample ID: LC2345/220311

Lab Sample ID: 410-75934-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.48	J cn	1.0	0.30	ug/L	1	_	8260D	Total/NA
1,2-Dichloroethane	3.1	cn	1.0	0.30	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	3.8	cn	1.0	0.30	ug/L	1		8260D	Total/NA
Chloroform	3.1	cn	1.0	0.30	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	2.5	cn	1.0	0.30	ug/L	1		8260D	Total/NA
Trichloroethene	0.53	J cn	1.0	0.30	ug/L	1		8260D	Total/NA

Client Sample ID: LC789/220311

Lab Sample ID: 410-75934-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Ty	ne
Chloroform		cn	1.0		ug/L	1	_	8260D	Total/NA	
Trichloroethene	1.5	cn	1.0	0.30	ug/L	1		8260D	Total/NA	A

Client Sample ID: TB/220311

Lab Sample ID: 410-75934-6

No Detections.

This Detection Summary does not include radiochemical test results.

3/22/2022

## **Client Sample Results**

Client: O & M Inc.

Project/Site: D'Imperio Property Site

Client Sample ID: EFF/220311

Lab Sample ID: 410-75934-1

Matrix: Water

Job ID: 410-75934-1

Date Collected: 03/11/22 10:33 Date Received: 03/11/22 19:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	MD	cn	1.0	0.30	ug/L			03/15/22 23:29	1
1,1-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
1,2-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
1,2-Dichloropropane	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
2-Butanone	ND	cn	10	0.50	ug/L			03/15/22 23:29	1
Benzene	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
Chloroform	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
cis-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/15/22 23:29	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
Toluene	ND	cn	1.0	0.20	ug/L			03/15/22 23:29	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
Trichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 23:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105	cn	80 - 120			_		03/15/22 23:29	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120					03/15/22 23:29	1
Dibromofluoromethane (Surr)	103	cn	80 - 120					03/15/22 23:29	1
Toluene-d8 (Surr)	100	cn	80 - 120					03/15/22 23:29	1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Phenol	ND		2.0	0.51	ug/L		03/18/22 09:26	03/20/22 19:58	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	90		10 - 150				03/18/22 09:26	03/20/22 19:58	1
2-Fluorobiphenyl (Surr)	84		44 - 120				03/18/22 09:26	03/20/22 19:58	1
2-Fluorophenol (Surr)	45		10 - 120				03/18/22 09:26	03/20/22 19:58	1
Nitrobenzene-d5 (Surr)	81		25 - 125				03/18/22 09:26	03/20/22 19:58	1
p-Terphenyl-d14 (Surr)	114		37 - 120				03/18/22 09:26	03/20/22 19:58	1
Phenol-d5 (Surr)	31		10 - 120				03/18/22 09:26	03/20/22 19:58	1

Method: EPA 300.0 R2.1 - Anions,	on Chromato	ography							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	2.0	J	5.0	1.5	mg/L			03/18/22 10:04	5
Chloride	27		2.0	1.0	mg/L			03/18/22 10:04	5

Analyte	Result	Qualifier	RL MD	L Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND	0.0	0.01	mg/L		03/16/22 21:59	03/18/22 09:34	1
Chromium	ND	0.0	0.001	6 mg/L		03/16/22 21:59	03/18/22 09:34	1
Lead	ND	0.0	0.007	1 mg/L		03/16/22 21:59	03/18/22 09:34	1
Copper	ND	0.0	20 0.01	2 mg/L		03/16/22 21:59	03/18/22 09:34	1
Iron	ND	0.	20 0.04	0 mg/L		03/16/22 21:59	03/18/22 09:34	1
Manganese	0.013	0.0	0.003	0 mg/L		03/16/22 21:59	03/18/22 09:34	1
Zinc	ND	0.0	20 0.003	7 mg/L		03/16/22 21:59	03/18/22 09:34	1

Page 7 of 26

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

Client Sample ID: EFF/220311

Lab Sample ID: 410-75934-1

Date Collected: 03/11/22 10:33 **Matrix: Water** Date Received: 03/11/22 19:00

Method: 7470A - Mercury (CVAA) Analyte Result Qualifier RL **MDL** Unit D Prepared Analyzed Dil Fac 0.20 03/17/22 05:06 0.079 ug/L 03/17/22 18:43 Mercury 0.16 J **General Chemistry** Result Qualifier RL MDL Unit Prepared Analyte D Analyzed Dil Fac Biochemical Oxygen Demand ND 2.0 2.0 03/12/22 11:55 mg/L

Client Sample ID: LEADBAC/220311

Lab Sample ID: 410-75934-2 Date Collected: 03/11/22 10:39 **Matrix: Water** 

Date Received: 03/11/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac ND cn 1.0 0.30 ug/L 03/15/22 23:51 1.1.1-Trichloroethane 1,1-Dichloroethane ND cn 1.0 0.30 ug/L 03/15/22 23:51 1.0 ug/L 1.1-Dichloroethene ND cn 0.30 03/15/22 23:51 1.0 0.30 ug/L 03/15/22 23:51 1,2-Dichloroethane 0.79 1,2-Dichloropropane 1.0 0.30 ug/L 03/15/22 23:51 ND cn 2-Butanone ND cn 10 0.50 ug/L 03/15/22 23:51 Benzene ND cn 1.0 0.30 ug/L 03/15/22 23:51 Chlorobenzene ND cn 1.0 0.30 ug/L 03/15/22 23:51 1.0 0.30 ug/L 03/15/22 23:51 Chloroform 1.1 cn cis-1,2-Dichloroethene ND cn 1.0 0.30 ug/L 03/15/22 23:51 Ethylbenzene 1.0 03/15/22 23:51 ND cn 0.40 ug/L 03/15/22 23:51 Methylene Chloride ND cn 1.0 0.30 ug/L Toluene 1.0 03/15/22 23:51 ND 0.20 ug/L trans-1,2-Dichloroethene ND cn 1.0 0.30 ug/L 03/15/22 23:51 Trichloroethene ND cn 1.0 0.30 ug/L 03/15/22 23:51 1.0 03/15/22 23:51 Tetrachloroethene ND cn 0.30 ug/L

Surrogate	%Recovery	Qualifier	Limits	Pre	pared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	105	cn	80 - 120			03/15/22 23:51	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120			03/15/22 23:51	1
Dibromofluoromethane (Surr)	101	cn	80 - 120			03/15/22 23:51	1
Toluene-d8 (Surr)	101	cn	80 - 120			03/15/22 23:51	1

Client Sample ID: BR/UC/220311

Lab Sample ID: 410-75934-3 Date Collected: 03/11/22 10:46 **Matrix: Water** 

Date Received: 03/11/22 19:00

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 00:13	1
1,1-Dichloroethane	0.62	J cn	1.0	0.30	ug/L			03/16/22 00:13	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:13	1
1,2-Dichloroethane	0.96	J cn	1.0	0.30	ug/L			03/16/22 00:13	1
1,2-Dichloropropane	1.7	cn	1.0	0.30	ug/L			03/16/22 00:13	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 00:13	1
Benzene	ND	cn	1.0	0.30	ug/L			03/16/22 00:13	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 00:13	1
Chloroform	8.1	cn	1.0	0.30	ug/L			03/16/22 00:13	1
cis-1,2-Dichloroethene	1.1	cn	1.0	0.30	ug/L			03/16/22 00:13	1

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Page 8 of 26 3/22/2022

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

Client Sample ID: BR/UC/220311

Date Collected: 03/11/22 10:46 Date Received: 03/11/22 19:00

Lab Sample ID: 410-75934-3

Matrix: Water

Method: 8260D - Volatile Orga	nic Compounds by GC/MS (	(Continued)
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Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Ethylbenzene	1.2	cn	1.0	0.40	ug/L			03/16/22 00:13	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 00:13	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:13	1
Toluene	ND	cn	1.0	0.20	ug/L			03/16/22 00:13	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:13	1
Trichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:13	1
Vinyl chloride	ND	cn	1.0	0.20	ug/L			03/16/22 00:13	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	cn	80 - 120		03/16/22 00:13	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120		03/16/22 00:13	1
Dibromofluoromethane (Surr)	102	cn	80 - 120		03/16/22 00:13	1
Toluene-d8 (Surr)	100	cn	80 - 120		03/16/22 00:13	1

Client Sample ID: LC2345/220311

Date Collected: 03/11/22 07:57

Date Received: 03/11/22 19:00

Lab Sample ID: 410-75934-4

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	MD	cn	1.0	0.30	ug/L			03/16/22 00:35	1
1,1-Dichloroethane	0.48	J cn	1.0	0.30	ug/L			03/16/22 00:35	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:35	1
1,2-Dichloroethane	3.1	cn	1.0	0.30	ug/L			03/16/22 00:35	1
1,2-Dichloropropane	3.8	cn	1.0	0.30	ug/L			03/16/22 00:35	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 00:35	1
Benzene	ND	cn	1.0	0.30	ug/L			03/16/22 00:35	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 00:35	1
Chloroform	3.1	cn	1.0	0.30	ug/L			03/16/22 00:35	1
cis-1,2-Dichloroethene	2.5	cn	1.0	0.30	ug/L			03/16/22 00:35	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/16/22 00:35	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 00:35	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:35	1
Toluene	ND	cn	1.0	0.20	ug/L			03/16/22 00:35	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:35	1
Trichloroethene	0.53	J cn	1.0	0.30	ug/L			03/16/22 00:35	1
Vinyl chloride	ND	cn	1.0	0.20	ug/L			03/16/22 00:35	1

Surrogate	%Recovery	Qualifier	Limits	Prepa	red Analyz	zed Dil Fac
1,2-Dichloroethane-d4 (Surr)	107	cn	80 - 120		03/16/22	00:35 1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120		03/16/22	00:35 1
Dibromofluoromethane (Surr)	102	cn	80 - 120		03/16/22	00:35 1
Toluene-d8 (Surr)	101	cn	80 - 120		03/16/22	00:35 1

Client Sample ID: LC789/220311

Date Collected: 03/11/22 08:11

Date Received: 03/11/22 19:00

Lab S	ample	ID:	410-7	5934-5
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**Matrix: Water** 

Method: 8260D - Volatile Organic Compounds by GC/MS

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	Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	1,1,1-Trichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1

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Page 9 of 26 3/22/2022

Project/Site: D'Imperio Property Site

Client Sample ID: LC789/220311

Date Collected: 03/11/22 08:11 Date Received: 03/11/22 19:00

Client: O & M Inc.

Lab Sample ID: 410-75934-5

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
1,2-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
1,2-Dichloropropane	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 00:57	1
Benzene	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
Chloroform	2.4	cn	1.0	0.30	ug/L			03/16/22 00:57	1
cis-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/16/22 00:57	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
Toluene	ND	cn	1.0	0.20	ug/L			03/16/22 00:57	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 00:57	1
Trichloroethene	1.5	cn	1.0	0.30	ug/L			03/16/22 00:57	1
Vinyl chloride	ND	cn	1.0	0.20	ug/L			03/16/22 00:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	cn	80 - 120			-		03/16/22 00:57	1
4-Bromofluorobenzene (Surr)	95	cn	80 - 120					03/16/22 00:57	1
Dibromofluoromethane (Surr)	102	cn	80 - 120					03/16/22 00:57	1
Toluene-d8 (Surr)	101	cn	80 - 120					03/16/22 00:57	1

Client Sample ID: TB/220311 Lab Sample

Date Collected: 03/11/22 00:00

Date Received: 03/11/22 19:00

Lab Sample ID: 410-75934-6

Matrix: Water

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
1,1-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
1,2-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
1,2-Dichloropropane	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
2-Butanone	ND	cn	10	0.50	ug/L			03/15/22 21:16	1
Benzene	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
Chloroform	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
cis-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/15/22 21:16	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
Toluene	ND	cn	1.0	0.20	ug/L			03/15/22 21:16	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
Trichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:16	1
Vinyl chloride	ND	cn	1.0	0.20	ug/L			03/15/22 21:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	cn	80 - 120			_		03/15/22 21:16	1
4-Bromofluorobenzene (Surr)	97	cn	80 - 120					03/15/22 21:16	1

Eurofins Lancaster Laboratories Env, LLC

Page 10 of 26

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3

5

7

9

11

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## **Client Sample Results**

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

Client Sample ID: TB/220311 Lab Sample ID: 410-75934-6

Matrix: Water

Date Collected: 03/11/22 00:00 Date Received: 03/11/22 19:00

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Dibromofluoromethane (Surr)	100	cn	80 - 120		03/15/22 21:16	1
Toluene-d8 (Surr)	101	cn	80 - 120		03/15/22 21:16	1

## **Surrogate Summary**

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

#### Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water Prep Type: Total/NA

				Percent Sur	rogate Rec
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-75934-1	EFF/220311	105 cn	96 cn	103 cn	100 cn
410-75934-2	LEADBAC/220311	105 cn	96 cn	101 cn	101 cn
410-75934-3	BR/UC/220311	106 cn	96 cn	102 cn	100 cn
410-75934-4	LC2345/220311	107 cn	96 cn	102 cn	101 cn
410-75934-5	LC789/220311	106 cn	95 cn	102 cn	101 cn
410-75934-6	TB/220311	106 cn	97 cn	100 cn	101 cn
LCS 410-233939/4	Lab Control Sample	105	99	102	101
LCSD 410-233939/5	Lab Control Sample Dup	106	99	102	101
MB 410-233939/7	Method Blank	107	97	103	99

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

#### Method: 8270E - Semivolatile Organic Compounds (GC/MS)

**Matrix: Water** Prep Type: Total/NA

_		Percent Surrogate Recovery (Acceptanc						
		ТВР	FBP	2FP	NBZ	TPHd14	PHL	
Lab Sample ID	Client Sample ID	(10-150)	(44-120)	(10-120)	(25-125)	(37-120)	(10-120)	
410-75934-1	EFF/220311	90	84	45	81	114	31	
LCS 410-235057/2-A	Lab Control Sample	96	83	61	81	104	45	
LCSD 410-235057/3-A	Lab Control Sample Dup	98	81	63	81	98	47	
MB 410-235057/1-A	Method Blank	92	85	50	84	104	34	

#### **Surrogate Legend**

TBP = 2,4,6-Tribromophenol (Surr)

FBP = 2-Fluorobiphenyl (Surr)

2FP = 2-Fluorophenol (Surr)

NBZ = Nitrobenzene-d5 (Surr)

TPHd14 = p-Terphenyl-d14 (Surr)

PHL = Phenol-d5 (Surr)

Page 12 of 26

Project/Site: D'Imperio Property Site

#### Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sampl	e ID: MB	410-233939/7
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**Matrix: Water** 

Client: O & M Inc.

Analysis Batch: 233939

Client Sample ID: Method Blank Prep Type: Total/NA

MB MB Analyte Result Qualifier RL MDL Unit D Prepared Analyzed Dil Fac 1,1,1-Trichloroethane ND 1.0 0.30 ug/L 03/15/22 20:32 1,1-Dichloroethane ND 1.0 ug/L 03/15/22 20:32 0.30 ND 1,1-Dichloroethene 1.0 0.30 ug/L 03/15/22 20:32 1,2-Dichloroethane ND 1.0 0.30 ug/L 03/15/22 20:32 ND 03/15/22 20:32 1,2-Dichloropropane 1.0 0.30 ug/L 10 2-Butanone ND 0.50 ug/L 03/15/22 20:32 Benzene ND 1.0 0.30 ug/L 03/15/22 20:32 Chlorobenzene ND 1.0 0.30 ug/L 03/15/22 20:32 ND 03/15/22 20:32 Chloroform 1.0 0.30 ug/L cis-1,2-Dichloroethene ND 1.0 0.30 ug/L 03/15/22 20:32 Ethylbenzene ND 1.0 0.40 ug/L 03/15/22 20:32 Methylene Chloride ND 1.0 0.30 ug/L 03/15/22 20:32 ND Toluene 1.0 0.20 ug/L 03/15/22 20:32 trans-1,2-Dichloroethene ND 1.0 0.30 ug/L 03/15/22 20:32 Tetrachloroethene ND 1.0 0.30 ug/L 03/15/22 20:32 Trichloroethene ND 1.0 0.30 ug/L 03/15/22 20:32 Vinyl chloride ND 1.0 0.20 ug/L 03/15/22 20:32

MB MB

Surrogate	%Recovery Qualifie	r Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107	80 - 120		03/15/22 20:32	1
4-Bromofluorobenzene (Surr)	97	80 - 120		03/15/22 20:32	1
Dibromofluoromethane (Surr)	103	80 - 120		03/15/22 20:32	1
Toluene-d8 (Surr)	99	80 - 120		03/15/22 20:32	1

Lab Sample ID: LCS 410-233939/4

**Matrix: Water** 

Analysis Batch: 233939

Client Sample ID	: Lab Control Sample
	Prep Type: Total/NA

LCS LCS Spike %Rec. Added Qualifier %Rec Analyte Result Unit Limits 20.0 80 1,1,1-Trichloroethane 16.1 ug/L 67 - 126 1,1-Dichloroethane 20.0 17.6 ug/L 88 80 - 120 1,1-Dichloroethene 20.0 16.8 ug/L 84 80 - 131 1,2-Dichloroethane 20.0 18.0 ug/L 90 73 - 124 1,2-Dichloropropane 20.0 18.6 ug/L 93 80 - 120 2-Butanone 250 290 ug/L 116 59 - 135 Benzene 20.0 17.6 ug/L 88 80 - 120 Chlorobenzene 20.0 17.2 ug/L 86 80 - 120 Chloroform 20.0 17.1 ug/L 86 80 - 120 cis-1,2-Dichloroethene 20.0 17.6 88 80 - 125 ug/L 20.0 16.7 84 80 - 120 Ethylbenzene ug/L Methylene Chloride 20.0 17.8 89 80 - 120 ug/L 20.0 16.7 84 80 - 120 ug/L trans-1.2-Dichloroethene 20.0 16.5 ug/L 83 80 - 126 Tetrachloroethene 20.0 17.2 ug/L 86 80 - 120 Trichloroethene 20.0 17.2 ug/L 86 80 - 120 20.0 76 56 - 120 Vinyl chloride 15.1 ug/L

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Page 13 of 26

Project/Site: D'Imperio Property Site

#### Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-233939/4

**Matrix: Water** 

Client: O & M Inc.

Analysis Batch: 233939

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

LCS LCS Surrogate %Recovery Qualifier Limits 1,2-Dichloroethane-d4 (Surr) 105 80 - 120 4-Bromofluorobenzene (Surr) 99 80 - 120 Dibromofluoromethane (Surr) 102 80 - 120 Toluene-d8 (Surr) 101 80 - 120

Lab Sample ID: LCSD 410-233939/5 Client Sample ID: Lab Control Sample Dup

Matrix: Water

Analysis Batch: 233939

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1-Trichloroethane	20.0	16.8		ug/L		84	67 - 126	4	30
1,1-Dichloroethane	20.0	18.0		ug/L		90	80 - 120	2	30
1,1-Dichloroethene	20.0	17.3		ug/L		87	80 - 131	3	30
1,2-Dichloroethane	20.0	18.5		ug/L		92	73 - 124	3	30
1,2-Dichloropropane	20.0	18.7		ug/L		94	80 - 120	1	30
2-Butanone	250	293		ug/L		117	59 - 135	1	30
Benzene	20.0	17.8		ug/L		89	80 - 120	1	30
Chlorobenzene	20.0	17.4		ug/L		87	80 - 120	1	30
Chloroform	20.0	17.4		ug/L		87	80 - 120	2	30
cis-1,2-Dichloroethene	20.0	17.7		ug/L		89	80 - 125	1	30
Ethylbenzene	20.0	16.9		ug/L		84	80 - 120	1	30
Methylene Chloride	20.0	17.7		ug/L		88	80 - 120	1	30
Toluene	20.0	16.8		ug/L		84	80 - 120	0	30
trans-1,2-Dichloroethene	20.0	16.9		ug/L		84	80 - 126	2	30
Tetrachloroethene	20.0	17.7		ug/L		88	80 - 120	3	30
Trichloroethene	20.0	17.0		ug/L		85	80 - 120	1	30
Vinyl chloride	20.0	15.7		ug/L		78	56 - 120	4	30

LCSD LCSD Surrogate %Recovery Qualifier Limits 80 - 120 1,2-Dichloroethane-d4 (Surr) 106 4-Bromofluorobenzene (Surr) 99 80 - 120 102 80 - 120 Dibromofluoromethane (Surr) Toluene-d8 (Surr) 101 80 - 120

#### Method: 8270E - Semivolatile Organic Compounds (GC/MS)

MB MB

Lab Sample ID: MB 410-235057/1-A

Matrix: Water

Prep Type: Total/NA

Analysis Batch: 235717

Client Sample ID: Method Blank
Prep Type: Total/NA

Prep Batch: 235057

 Analyte
 Result
 Qualifier
 RL
 MDL unit
 Unit
 D unit
 Prepared
 Analyzed
 Dil Fac

 Phenol
 ND
 2.0
 0.50
 ug/L
 03/18/22 09:26
 03/21/22 14:13
 1

	MB	MB				
Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2,4,6-Tribromophenol (Surr)	92		10 - 150	03/18/22 09:26	03/21/22 14:13	1
2-Fluorobiphenyl (Surr)	85		44 - 120	03/18/22 09:26	03/21/22 14:13	1
2-Fluorophenol (Surr)	50		10 - 120	03/18/22 09:26	03/21/22 14:13	1
Nitrobenzene-d5 (Surr)	84		25 - 125	03/18/22 09:26	03/21/22 14:13	1

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Page 14 of 26

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3/22/2022

Project/Site: D'Imperio Property Site

Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

Lab Sample ID: MB 410-235057/1-A

**Matrix: Water** 

Client: O & M Inc.

Analysis Batch: 235717

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 235057** 

MB MB

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl-d14 (Surr)	104		37 - 120	03/18/22 09:26	03/21/22 14:13	1
Phenol-d5 (Surr)	34		10 - 120	03/18/22 09:26	03/21/22 14:13	1

Lab Sample ID: LCS 410-235057/2-A

**Matrix: Water** 

Analysis Batch: 235564

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

**Prep Batch: 235057** 

Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits Phenol 50.0 23.8 ug/L 22 - 120

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	96		10 - 150
2-Fluorobiphenyl (Surr)	83		44 - 120
2-Fluorophenol (Surr)	61		10 - 120
Nitrobenzene-d5 (Surr)	81		25 - 125
p-Terphenyl-d14 (Surr)	104		37 - 120
Phenol-d5 (Surr)	45		10 - 120

Client Sample ID: Lab Control Sample Dup

**Matrix: Water** 

Analysis Batch: 235564

Lab Sample ID: LCSD 410-235057/3-A

Prep Type: Total/NA

**Prep Batch: 235057** 

RPD %Rec.

Analyte	Added	Result	Qualifier Unit	D	%Rec	Limits	RPD	Limit
Phenol	50.0	25.5	ug/L		51	22 - 120	7	30

Spike

LCSD LCSD

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
2,4,6-Tribromophenol (Surr)	98		10 - 150
2-Fluorobiphenyl (Surr)	81		44 - 120
2-Fluorophenol (Surr)	63		10 - 120
Nitrobenzene-d5 (Surr)	81		25 - 125
p-Terphenyl-d14 (Surr)	98		37 - 120
Phenol-d5 (Surr)	47		10 - 120

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography

Lab Sample ID: MB 410-235018/5

**Matrix: Water** 

Analysis Batch: 235018

Client Sample ID: Method Blank

Prep Type: Total/NA

MB MB

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Sulfate	ND		1.0	0.30	mg/L			03/18/22 07:22	1
Chloride	ND		0.40	0.20	mg/L			03/18/22 07:22	1

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Page 15 of 26

Prep Type: Total/NA

Prep Type: Total/NA

Client Sample ID: Method Blank

03/16/22 21:59

03/16/22 21:59

**Prep Type: Total Recoverable** 

03/18/22 09:05

03/18/22 09:05

**Client Sample ID: Lab Control Sample** 

**Client Sample ID: Lab Control Sample** 

Client Sample ID: Lab Control Sample Dup

Project/Site: D'Imperio Property Site

Method: EPA 300.0 R2.1 - Anions, Ion Chromatography (Continued)

Lab Sample ID: LCS 410-235018/3

**Matrix: Water** 

Client: O & M Inc.

Analysis Batch: 235018

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Sulfate	7.50	7.50		mg/L		100	90 - 110	
Chloride	3.00	2.94		mg/L		98	90 - 110	

Lab Sample ID: LCSD 410-235018/4

**Matrix: Water** 

Analysis Batch: 235018

7 manyolo Batolii 2000 lo									
	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Sulfate	7.50	7.48		mg/L		100	90 - 110	0	20
Chloride	3.00	2.93		mg/L		98	90 - 110	1	20

Method: 6010D - Metals (ICP)

Lab Sample ID: MB 410-234482/1-A

**Matrix: Water** 

Analysis Batch: 235151								Prep Batch:	234482
	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	ND		0.050	0.016	mg/L		03/16/22 21:59	03/18/22 09:05	1
Chromium	ND		0.015	0.0016	mg/L		03/16/22 21:59	03/18/22 09:05	1
Lead	ND		0.015	0.0071	mg/L		03/16/22 21:59	03/18/22 09:05	1
Copper	ND		0.020	0.012	mg/L		03/16/22 21:59	03/18/22 09:05	1
Iron	ND		0.20	0.040	mg/L		03/16/22 21:59	03/18/22 09:05	1

0.010

0.020

ND

ND

0.0030 mg/L

0.0037 mg/L

Lab Sample ID: LCS 410-234482/2-A

Manganese

Zinc

Matrix: Water Analysis Batch: 235151						Prep		Recoverable atch: 234482
Analysis Baton. 200101	Spike	LCS	LCS				%Rec.	uton. 204402
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Arsenic	0.500	0.496		mg/L		99	80 - 120	
Chromium	0.500	0.503		mg/L		101	80 - 120	
Lead	0.0500	0.0535		mg/L		107	80 - 120	
Copper	0.500	0.523		mg/L		105	80 - 120	
Iron	5.00	4.98		mg/L		100	80 - 120	
Manganese	0.500	0.505		mg/L		101	80 - 120	
Zinc	0.500	0.498		mg/L		100	80 - 120	

Method: 7470A - Mercury (CVAA)

Lab Sample ID: MB 410-234516/1-A

**Matrix: Water** 

Analysis Batch: 234923

 Datoin 20			
		MB	MB

Analyte Result Qualifier RL MDL Unit Prepared Analyzed Dil Fac 0.20 0.079 ug/L 03/17/22 05:06 03/17/22 18:03 Mercury ND

Eurofins Lancaster Laboratories Env, LLC

Page 16 of 26

Client Sample ID: Method Blank

Prep Type: Total/NA

**Prep Batch: 234516** 

#### QC Sample Results

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

Method: 7470A - Mercury (CVAA) (Continued)

Lab Sample ID: LCS 410-234516/2-A **Matrix: Water** 

Analysis Batch: 234923

**Client Sample ID: Lab Control Sample** Prep Type: Total/NA

**Prep Batch: 234516** 

Limits %Rec 100

80 - 118

Method: 5210 B-2011 - BOD, 5-Day

Lab Sample ID: SCB 410-234750/4

Lab Sample ID: USB 410-234750/2

**Matrix: Water** 

**Matrix: Water** 

Analyte

Mercury

Analysis Batch: 234750

SCB SCB

Result Qualifier

Biochemical Oxygen Demand

0.815

RL 0.0000010

Spike

Added

1.00

MDL Unit 0.0000010 mg/L

LCS LCS

0.999

Result Qualifier

D

Unit

ug/L

Prepared

Analyzed 03/12/22 10:18

Client Sample ID: Method Blank

Client Sample ID: Method Blank

Dil Fac

Dil Fac

Prep Type: Total/NA

Prep Type: Total/NA

USB USB

Analyte

Analysis Batch: 234750

Biochemical Oxygen Demand

Result Qualifier

0.0967

RL 0.0000010

MDL Unit 0.0000010 mg/L

D

Prepared

Analyzed 03/12/22 10:18

**Client Sample ID: Lab Control Sample** 

Prep Type: Total/NA

Lab Sample ID: LCS 410-234750/5

**Matrix: Water** 

Analyte

Analysis Batch: 234750

Biochemical Oxygen Demand

Spike Added

199

Result Qualifier 184

LCS LCS

Unit mg/L %Rec

Limits 85 - 115

%Rec.

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

#### **GC/MS VOA**

#### Analysis Batch: 233939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-75934-1	EFF/220311	Total/NA	Water	8260D	
410-75934-2	LEADBAC/220311	Total/NA	Water	8260D	
410-75934-3	BR/UC/220311	Total/NA	Water	8260D	
410-75934-4	LC2345/220311	Total/NA	Water	8260D	
410-75934-5	LC789/220311	Total/NA	Water	8260D	
410-75934-6	TB/220311	Total/NA	Water	8260D	
MB 410-233939/7	Method Blank	Total/NA	Water	8260D	
LCS 410-233939/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-233939/5	Lab Control Sample Dup	Total/NA	Water	8260D	

#### GC/MS Semi VOA

#### **Prep Batch: 235057**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batc
410-75934-1	EFF/220311	Total/NA	Water	3510C	
MB 410-235057/1-A	Method Blank	Total/NA	Water	3510C	
LCS 410-235057/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 410-235057/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	

#### Analysis Batch: 235564

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-75934-1	EFF/220311	Total/NA	Water	8270E	235057
LCS 410-235057/2-A	Lab Control Sample	Total/NA	Water	8270E	235057
LCSD 410-235057/3-A	Lab Control Sample Dup	Total/NA	Water	8270E	235057

#### Analysis Batch: 235717

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 410-235057/1-A	Method Blank	Total/NA	Water	8270E	235057

### HPLC/IC

#### Analysis Batch: 235018

Lab Sample ID 410-75934-1	Client Sample ID EFF/220311	Prep Type Total/NA	Matrix Water	Method EPA 300.0 R2.1	Prep Batch
MB 410-235018/5	Method Blank	Total/NA	Water	EPA 300.0 R2.1	
LCS 410-235018/3	Lab Control Sample	Total/NA	Water	EPA 300.0 R2.1	
LCSD 410-235018/4	Lab Control Sample Dup	Total/NA	Water	EPA 300.0 R2.1	

#### **Metals**

#### **Prep Batch: 234482**

Lab Sample ID 410-75934-1	Client Sample ID  EFF/220311	Prep Type  Total Recoverable	Matrix Water	Method 3005A	Prep Batch
MB 410-234482/1-A	Method Blank	Total Recoverable	Water	3005A	
LCS 410-234482/2-A	Lab Control Sample	Total Recoverable	Water	3005A	

#### **Prep Batch: 234516**

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-75934-1	EFF/220311	Total/NA	Water	7470A	
MB 410-234516/1-A	Method Blank	Total/NA	Water	7470A	
LCS 410-234516/2-A	Lab Control Sample	Total/NA	Water	7470A	

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Page 18 of 26

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## **QC Association Summary**

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

**Metals** 

Analysis Batch: 234923

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-75934-1	EFF/220311	Total/NA	Water	7470A	234516
MB 410-234516/1-A	Method Blank	Total/NA	Water	7470A	234516
LCS 410-234516/2-A	Lab Control Sample	Total/NA	Water	7470A	234516

Analysis Batch: 235151

Lab Sample ID 410-75934-1	Client Sample ID EFF/220311	Prep Type  Total Recoverable	Matrix Water	<b>Method</b> 6010D	Prep Batch 234482
MB 410-234482/1-A	Method Blank	Total Recoverable	Water	6010D	234482
LCS 410-234482/2-A	Lab Control Sample	Total Recoverable	Water	6010D	234482

**General Chemistry** 

Analysis Batch: 234750

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-75934-1	EFF/220311	Total/NA	Water	5210 B-2011	
SCB 410-234750/4	Method Blank	Total/NA	Water	5210 B-2011	
USB 410-234750/2	Method Blank	Total/NA	Water	5210 B-2011	
LCS 410-234750/5	Lab Control Sample	Total/NA	Water	5210 B-2011	

L ID 440 75004 4

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Client Sample ID: EFF/220311

Date Collected: 03/11/22 10:33 Date Received: 03/11/22 19:00

Lab Sample ID: 410-75934-1

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	233939	03/15/22 23:29	K4WN	ELLE
Total/NA	Prep	3510C			235057	03/18/22 09:26	YDF5	ELLE
Total/NA	Analysis	8270E		1	235564	03/20/22 19:58	DZ6A	ELLE
Total/NA	Analysis	EPA 300.0 R2.1		5	235018	03/18/22 10:04	W5UX	ELLE
Total Recoverable	Prep	3005A			234482	03/16/22 21:59	UAMX	ELLE
Total Recoverable	Analysis	6010D		1	235151	03/18/22 09:34	WJM9	ELLE
Total/NA	Prep	7470A			234516	03/17/22 05:06	N2PU	ELLE
Total/NA	Analysis	7470A		1	234923	03/17/22 18:43	UEFS	ELLE
Total/NA	Analysis	5210 B-2011		1	234750	03/12/22 11:55	F8TI	ELLE

Client Sample ID: LEADBAC/220311

Date Collected: 03/11/22 10:39

Date Received: 03/11/22 19:00

Lab Sample ID: 410-75934-2

**Matrix: Water** 

Batch Batch Dilution Batch Prepared Prep Type Method Type Run Factor Number or Analyzed Analyst Lab 8260D 233939 03/15/22 23:51 ELLE Total/NA Analysis K4WN

Client Sample ID: BR/UC/220311

Date Collected: 03/11/22 10:46

Date Received: 03/11/22 19:00

Lab Sample ID: 410-75934-3

Lab Sample ID: 410-75934-4

**Matrix: Water** 

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	233939	03/16/22 00:13	K4WN	ELLE

Client Sample ID: LC2345/220311

Date Collected: 03/11/22 07:57

Date Received: 03/11/22 19:00

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NIA	Analysis	8360D			233030	03/16/22 00:35	KAMNI		

Date Collected: 03/11/22 08:11

Date Received: 03/11/22 19:00

				_	ab Sample ID: 4	
Total/NA Analysis 8260D	1	233939	03/16/22 00:35	K4WN	ELLE	

Batch Batch Dilution Batch Prepared Prep Type Туре Method Run Factor Number or Analyzed Analyst Lab Total/NA Analysis 8260D 233939 03/16/22 00:57 K4WN ELLE

Client Sample ID

Client Sample ID: TB/220311	Lab Sample ID: 410-75934-6
Date Collected: 03/11/22 00:00	Matrix: Water
Date Received: 03/11/22 19:00	

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	233939	03/15/22 21:16	K4WN	ELLE

**Matrix: Water** 

#### **Lab Chronicle**

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

#### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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## **Accreditation/Certification Summary**

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
New Jersey	NELAP	PA011	06-30-22

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## **Method Summary**

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

Method	Method Description	Protocol	Laboratory
3260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
3270E	Semivolatile Organic Compounds (GC/MS)	SW846	ELLE
EPA 300.0 R2.1	Anions, Ion Chromatography	EPA	ELLE
6010D	Metals (ICP)	SW846	ELLE
7470A	Mercury (CVAA)	SW846	ELLE
5210 B-2011	BOD, 5-Day	SM	ELLE
3005A	Preparation, Total Recoverable or Dissolved Metals	SW846	ELLE
3510C	Liquid-Liquid Extraction (Separatory Funnel)	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE
7470A	Preparation, Mercury	SW846	ELLE

#### Protocol References:

EPA = US Environmental Protection Agency

SM = "Standard Methods For The Examination Of Water And Wastewater"

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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## **Sample Summary**

Client: O & M Inc. Job ID: 410-75934-1

Project/Site: D'Imperio Property Site

Lab Sample ID	Client Sample ID	Matrix	Collected	Received	
410-75934-1	EFF/220311	Water	03/11/22 10:33	03/11/22 19:00	
410-75934-2	LEADBAC/220311	Water	03/11/22 10:39	03/11/22 19:00	
410-75934-3	BR/UC/220311	Water	03/11/22 10:46	03/11/22 19:00	
410-75934-4	LC2345/220311	Water	03/11/22 07:57	03/11/22 19:00	
410-75934-5	LC789/220311	Water	03/11/22 08:11	03/11/22 19:00	
410-75934-6	TB/220311	Water	03/11/22 00:00	03/11/22 19:00	

#### Eurofins Lancaster Laboratories Env, LLC

2425 New Holland Pike

### **Chain of Custody Record**

|--|

eurofins

Environment Testing

ancaster, PA 17601 Phone: 717-656-2300 Fax: 717-656-2681						America
lient Information	Sampler STEPHEN Phone 29 009		PM eyandt, Barbara A	410-75934 Cha	in of Custody	C No .0-51781-6703.1
Ilient Information ent Contact teve Borton	Phone 609-909			emfinent com	State of Origin	Page Page 1 of 1
mpany	1 601-100	PWSID	Tbara vveyariot@eu		1 143	Job#
& M Inc.	Due Date Pequested:			Analysis R		- Processiles Codes:
0 Montbrook Lane	Due Date Requested:	CSACC			(A)	Preservation Codes:  A - HCL M - Hexane
oxville	TAT Requested (days):			3	9	B - NaOH N - None C - Zn Acetate O - AsNaO2
te, Zip		45.			4	D - Nitric Acid P - Na2O4S
, 37919-2705 one	Compliance Project: XYes	Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ Λ	- - - -		점	E - NaHSO4 Q - Na2SO3 F - MeOH R - Na2S2O3
9-868-0447(Tel)	302A220TT2 382	A220311	0 0			G - Amchlor S - H2SO4 H - Ascorbic Acid T - TSP Dodecahydrate
ail orton@oandm-inc.com	WO#:		ipie (Yes of No	y Only		I - Ice U - Acetone J - DI Water V - MCAA
ect Name	Project #:		Ide,	à U	1	K - EDTA W - pH 4-5 L - EDA Z - other (specify)
mperio Property Site Quarterly	41002088		- E	Ca Ca	3	L - EDA Z - other (specify) Other:
w Jersey			g	0 V V P	7	0
		Sample Matrix	Eleid Fitered St	SM8210B_Calc - BOD, 5-Day Only 6010D, 7470A 8260D - Monthly VOCa 82406_60M - 44-610xane 32766_60M - 44-610xane		Special Instructions/Note:
	Commit	Type (W-water,	E - PI	5M5210B_Cal 6010D, 7470A 8260D - Monti	9	N. C.
ample Identification	Sample Date Time	G=grab) BT-YISSUE, A-AI	300_	SM5; 6010 8260	Ř	Special Instructions/Note:
		Preservation Code	XX n n	NAGN		X Production - Control of
EFE/220311	3-11-22/03	3 (7) W	NXX	$\times \times \times$		
LEASBAY / 220311	103					7
22/16/2/2001		,	+++++			
BK/UC/ 420311	1040		+++++		· · · · · · · · · · · · · · · · · · ·	
LC2345/220311	045	A				
1 C784/220311	1 4 0311	V			$\times$	
TR 1220311	3-11-22	GW	N		(	X
15/20311	01.04	10) 10				
						5.
safble Hazard Identification			Sample Disp	osal ( A fee may be	ass essed if samples are reta	ained longer than 1 month)
4	Poison B Unknown	Radiological		To Client	1 —	rchive For Months
liverable Requested: I, II(III) IV, Other (specify)			Special Instru	ctions/QC Requiren	nents	
npty Kit Relinquished by	Date	·	Time:		Method of Shipment:	
inquished by	Date/Time:	Company	Received		Date/Time:	Company
	Date/Time	Company		De la	2-10-27	
nquished by	Date/Time 31/-22 53	SO COMPANY	1 79	met	Destertime 12	. 1537 Company
inquishe b		53 company	Received by	1/2	Date/Tipe 3/11/22	19:00 CONTUET
Custody Seals Intact:   Custody Seal No.:		45	Cooler Tem	perature(s) C and Other		
Custody Seals Intact: Custody Seal No.: Not-PΩ	esent:		COOLER TEIN	- Side of the Carte Prince	3.10(	5

Ver 06/08/2021

3/22/2022

Client: O & M Inc. Job Number: 410-75934-1

Login Number: 75934 List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Renner, Melissa

Sample custody seals are intact.

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ( =6C, not frozen).</td <td>True</td> <td></td>	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ( =6C, not frozen).</td <td>N/A</td> <td></td>	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	

True

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# **Environment Testing America**

## **ANALYTICAL REPORT**

Eurofins Lancaster Laboratories Env, LLC 2425 New Holland Pike Lancaster, PA 17601 Tel: (717)656-2300

Laboratory Job ID: 410-75512-1

Client Project/Site: D'Imperio Property Site

For:

O & M Inc. 450 Montbrook Lane Knoxville, Tennessee 37919-2705

Attn: Mr. Tom Thomas

Barb Weyandt

Authorized for release by: 3/11/2022 9:28:21 AM

Barbara Weyandt, Project Manager (717)556-7264

Barbara.Weyandt@eurofinset.com

·····LINKS ······

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**Have a Question?** 



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www.eurofinsus.com/Env

The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

· QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.

- · Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
- · Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Barb Weyandt

Barbara Weyandt **Project Manager** 3/11/2022 9:28:21 AM

Page 2 of 32

Laboratory Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

## **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	8
Surrogate Summary	19
QC Sample Results	20
QC Association Summary	
Lab Chronicle	24
Certification Summary	27
Method Summary	28
Sample Summary	29
Chain of Custody	30
Receipt Checklists	32

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6

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10

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13

#### **Definitions/Glossary**

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

#### **Qualifiers**

#### **GC/MS VOA**

Qualifier	Qualifier Description

J Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

#### **Glossary**

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
1C	Result is from the primary column on a dual-column method.
2C	Result is from the confirmation column on a dual-column method.
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)

EDL Estimated Detection Limit (Dioxin)

LOD Limit of Detection (DoD/DOE)

LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level"

MDA Minimum Detectable Activity (Radiochemistry)

MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit
ML Minimum Level (Dioxin)
MPN Most Probable Number
MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent
POS Positive / Present

PQL Practical Quantitation Limit

PRES Presumptive
QC Quality Control

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

TEF Toxicity Equivalent Factor (Dioxin)
TEQ Toxicity Equivalent Quotient (Dioxin)

TNTC Too Numerous To Count

Eurofins Lancaster Laboratories Env, LLC

Page 4 of 32

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#### **Case Narrative**

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

Job ID: 410-75512-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-75512-1

#### Receipt

The samples were received on 3/9/2022 5:36 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.0°C

#### GC/MS VOA

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Job ID: 410-75512-1

Client: O & M Inc.
Project/Site: D'Imperio Property Site

Client Sample ID: MW-79-2	0220307					La	b S	Sample ID	): 410-75512- <sup>4</sup>
– Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.65	J	1.0	0.30	ug/L	1	_	8260D	Total/NA
lient Sample ID: MW-80-2	0220307					La	b S	Sample ID	): 410-75512-2
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.91	J	1.0	0.30	ug/L	1	_	8260D	Total/NA
Client Sample ID: MW-74-2	0220307					La	b S	Sample ID	): 410-75512-
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.86	J	1.0	0.30	ug/L	1	_	8260D	Total/NA
Client Sample ID: FB-20220	307					La	b S	Sample ID	): 410-75512-4
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.5		1.0	0.30	ug/L	1	_	8260D	Total/NA
Client Sample ID: MW-41-2	0220308					La	b S	Sample ID	): 410-75512-
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	5.2		1.0	0.30		1	_	8260D	Total/NA
Client Sample ID: MW-24-1	-20220308					La	b S	Sample ID	): 410-75512-
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	34		1.0	0.30	ug/L	1	_	8260D	Total/NA
Client Sample ID: MW-49-2	0220308					La	b S	Sample ID	): 410-75512-
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	6.1		1.0	0.30	ug/L	1	_	8260D	Total/NA
Client Sample ID: MW-56-2	0220308					La	b S	Sample ID	): 410-75512-
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	0.79	J	1.0	0.30	ug/L	1	_	8260D	Total/NA
Chloroform	2.0		1.0	0.30	ug/L	1		8260D	Total/NA
lient Sample ID: OBW-62-	20220308					La	b S	Sample ID	): 410-75512-
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,2-Dichloropropane	2.3		1.0	0.30	ug/L	1	_	8260D	Total/NA
Chloroform	2.3		1.0	0.30	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	0.61	J	1.0	0.30	ug/L	1		8260D	Total/NA
Client Sample ID: OBW-63-	20220308					Lab	S	ample ID:	410-75512-1
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	1.2		1.0	0.30	ug/L	1		8260D	Total/NA
Client Sample ID: FB-20220	308					Lab	S	ample ID:	410-75512-1
-									
Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

3/11/2022

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

Client Sample ID: MW-55-2	0220309					Lab	Sample ID:	410-75512-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac [	) Method	Prep Type
Chloroform	1.1		1.0	0.30	ug/L		8260D	Total/NA
Client Sample ID: MW-59-2	0220309					Lab	Sample ID:	410-75512-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac [	) Method	Prep Type
Chloroform	2.9		1.0	0.30	ug/L		8260D	Total/NA
Client Sample ID: MW-28-1	-20220309					Lab	Sample ID:	410-75512-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac [	) Method	Prep Type
Chloroform	32		1.0	0.30	ug/L	1	8260D	Total/NA
Client Sample ID: MW-28-2	-20220309					Lab	Sample ID:	410-75512-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac [	) Method	Prep Type
1,1-Dichloroethane	0.43	J	1.0	0.30	ug/L		8260D	Total/NA
1,2-Dichloroethane	1.7		1.0	0.30	ug/L	1	8260D	Total/NA
1,2-Dichloropropane	1.4		1.0	0.30	ug/L	1	8260D	Total/NA
Benzene	0.42	J	1.0	0.30	ug/L	1	8260D	Total/NA
cis-1,2-Dichloroethene	3.5		1.0	0.30	ug/L	1	8260D	Total/NA
Client Sample ID: MW-43-2	0220309					Lab	Sample ID:	410-75512-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac [	) Method	Prep Type
1,1-Dichloroethane	3.6		1.0	0.30	ug/L		8260D	Total/NA
1,1-Dichloroethene	0.69	J	1.0	0.30	ug/L	1	8260D	Total/NA
Client Sample ID: FB-20220	0309					Lab	Sample ID:	410-75512-1
- Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac [	) Method	Prep Type
Chloroform	2.6		1.0	0.30	ug/L	1	8260D	Total/NA
Client Sample ID: TB-20220	1200					Lah	Sample ID:	410-75512-1

No Detections.

This Detection Summary does not include radiochemical test results.

3/11/2022

## **Client Sample Results**

Client: O & M Inc.

Project/Site: D'Imperio Property Site

Client Sample ID: MW-79-20220307

Date Collected: 03/07/22 11:50 Date Received: 03/09/22 17:36 Lab Sample ID: 410-75512-1

Matrix: Groundwater

Job ID: 410-75512-1

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 01:01	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 01:01	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 01:01	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 01:01	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 01:01	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 01:01	1
Benzene	ND		1.0	0.30	ug/L			03/11/22 01:01	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 01:01	1
Chloroform	0.65	J	1.0	0.30	ug/L			03/11/22 01:01	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 01:01	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 01:01	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 01:01	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 01:01	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 01:01	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 01:01	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 01:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		80 - 120			_		03/11/22 01:01	1
4-Bromofluorobenzene (Surr)	92		80 - 120					03/11/22 01:01	1
Dibromofluoromethane (Surr)	92		80 - 120					03/11/22 01:01	1
Toluene-d8 (Surr)	101		80 - 120					03/11/22 01:01	1

Client Sample ID: MW-80-20220307

Date Collected: 03/07/22 13:13 Date Received: 03/09/22 17:36 Lab Sample ID: 410-75512-2

**Matrix: Groundwater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 02:11	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 02:11	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:11	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 02:11	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 02:11	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 02:11	1
Benzene	ND		1.0	0.30	ug/L			03/11/22 02:11	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 02:11	1
Chloroform	0.91	J	1.0	0.30	ug/L			03/11/22 02:11	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:11	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 02:11	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 02:11	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 02:11	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:11	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:11	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 02:11	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		80 - 120			-		03/11/22 02:11	1
4-Bromofluorobenzene (Surr)	93		80 - 120					03/11/22 02:11	1
Dibromofluoromethane (Surr)	90		80 <sub>-</sub> 120					03/11/22 02:11	1

Eurofins Lancaster Laboratories Env, LLC

Page 8 of 32

3/11/2022

#### **Client Sample Results**

Client: O & M Inc.

Project/Site: D'Imperio Property Site

**Client Sample ID: MW-80-20220307** 

Date Collected: 03/07/22 13:13 Date Received: 03/09/22 17:36 Lab Sample ID: 410-75512-2

Matrix: Groundwater

Job ID: 410-75512-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

 Surrogate
 %Recovery
 Qualifier
 Limits
 Prepared
 Analyzed
 Dil Fac

 Toluene-d8 (Surr)
 99
 80 - 120
 03/11/22 02:11
 1

**Client Sample ID: MW-74-20220307** 

Date Collected: 03/07/22 15:33 Date Received: 03/09/22 17:36 Lab Sample ID: 410-75512-3

Matrix: Groundwater

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 02:34	
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 02:34	
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:34	
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 02:34	
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 02:34	
2-Butanone	ND		10	0.50	ug/L			03/11/22 02:34	
Benzene	ND		1.0	0.30	ug/L			03/11/22 02:34	
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 02:34	
Chloroform	0.86	J	1.0	0.30	ug/L			03/11/22 02:34	
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:34	
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 02:34	
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 02:34	
Toluene	ND		1.0	0.20	ug/L			03/11/22 02:34	
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:34	
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:34	
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 02:34	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92	80 - 120		03/11/22 02:34	1
4-Bromofluorobenzene (Surr)	94	80 - 120		03/11/22 02:34	1
Dibromofluoromethane (Surr)	89	80 - 120		03/11/22 02:34	1
Toluene-d8 (Surr)	101	80 - 120		03/11/22 02:34	1

Client Sample ID: FB-20220307

Date Collected: 03/07/22 16:10

Date Received: 03/09/22 17:36

Lab Sample ID: 410-75512-4

**Matrix: Water** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/10/22 23:28	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/10/22 23:28	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/10/22 23:28	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/10/22 23:28	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/10/22 23:28	1
2-Butanone	ND		10	0.50	ug/L			03/10/22 23:28	1
Benzene	ND		1.0	0.30	ug/L			03/10/22 23:28	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/10/22 23:28	1
Chloroform	2.5		1.0	0.30	ug/L			03/10/22 23:28	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/10/22 23:28	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/10/22 23:28	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/10/22 23:28	1
Toluene	ND		1.0	0.20	ug/L			03/10/22 23:28	1

Eurofins Lancaster Laboratories Env, LLC

Page 9 of 32 3/11/2022

4

6

7

9

14

Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

Client Sample ID: FB-20220307

Lab Sample ID: 410-75512-4 Date Collected: 03/07/22 16:10

Matrix: Water

Date Received: 03/09/22 17:36

Client: O & M Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/10/22 23:28	1
Trichloroethene	ND		1.0	0.30	ug/L			03/10/22 23:28	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/10/22 23:28	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		80 - 120			-		03/10/22 23:28	1
4-Bromofluorobenzene (Surr)	93		80 - 120					03/10/22 23:28	1
Dibromofluoromethane (Surr)	90		80 - 120					03/10/22 23:28	1

Client Sample ID: MW-41-20220308

Lab Sample ID: 410-75512-5

Date Collected: 03/08/22 10:01 **Matrix: Groundwater** 

Date Received: 03/09/22 17:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 02:57	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 02:57	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:57	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 02:57	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 02:57	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 02:57	1
Benzene	ND		1.0	0.30	ug/L			03/11/22 02:57	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 02:57	1
Chloroform	5.2		1.0	0.30	ug/L			03/11/22 02:57	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:57	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 02:57	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 02:57	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 02:57	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:57	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 02:57	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 02:57	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4.0 Distriction of the control of th						-			

Surrogate	%Recovery Q	Qualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92	80 - 120		03/11/22 02:57	1
4-Bromofluorobenzene (Surr)	95	80 - 120		03/11/22 02:57	1
Dibromofluoromethane (Surr)	92	80 - 120		03/11/22 02:57	1
Toluene-d8 (Surr)	100	80 - 120		03/11/22 02:57	1

Client Sample ID: MW-24-1-20220308

Lab Sample ID: 410-75512-6

Date Collected: 03/08/22 10:55 **Matrix: Groundwater** 

Date Received: 03/09/22 17:36

Method: 8260D - Volatile Organic Compounds by GC/MS									
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 03:20	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 03:20	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 03:20	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 03:20	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 03:20	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 03:20	1

Eurofins Lancaster Laboratories Env, LLC

Page 10 of 32 3/11/2022

Client: O & M Inc.

Project/Site: D'Imperio Property Site

Client Sample ID: MW-24-1-20220308

Date Collected: 03/08/22 10:55 Date Received: 03/09/22 17:36

Job ID: 410-75512-1

Lab Sample ID: 410-75512-6 Matrix: Groundwater

Analyte	Result Q	ualifier RI	. MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND ND	1.0	0.30	ug/L			03/11/22 03:20	1
Chlorobenzene	ND	1.0	0.30	ug/L			03/11/22 03:20	1
Chloroform	34	1.0	0.30	ug/L			03/11/22 03:20	1
cis-1,2-Dichloroethene	ND	1.0	0.30	ug/L			03/11/22 03:20	1
Ethylbenzene	ND	1.0	0.40	ug/L			03/11/22 03:20	1
Methylene Chloride	ND	1.0	0.30	ug/L			03/11/22 03:20	1
Toluene	ND	1.0	0.20	ug/L			03/11/22 03:20	1
trans-1,2-Dichloroethene	ND	1.0	0.30	ug/L			03/11/22 03:20	1
Trichloroethene	ND	1.0	0.30	ug/L			03/11/22 03:20	1
Tetrachloroethene	ND	1.0	0.30	ug/L			03/11/22 03:20	1
Surrogate	%Recovery Q	ualifier Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95	80 - 120	-		-		03/11/22 03:20	1
4-Bromofluorobenzene (Surr)	93	80 - 120					03/11/22 03:20	1

80 - 120

80 - 120

92

100

Client Sample ID: MW-49-20220308

Date Collected: 03/08/22 12:54 Date Received: 03/09/22 17:36

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

Lab Sample ID: 410-75512-7

03/11/22 03:20

03/11/22 03:20

**Matrix: Groundwater** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 03:43	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 03:43	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 03:43	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 03:43	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 03:43	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 03:43	1
Benzene	ND		1.0	0.30	ug/L			03/11/22 03:43	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 03:43	1
Chloroform	6.1		1.0	0.30	ug/L			03/11/22 03:43	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 03:43	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 03:43	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 03:43	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 03:43	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 03:43	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 03:43	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 03:43	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	91		80 - 120		03/11/22 03:43	1
4-Bromofluorobenzene (Surr)	94		80 - 120		03/11/22 03:43	1
Dibromofluoromethane (Surr)	91		80 - 120		03/11/22 03:43	1
Toluene-d8 (Surr)	100		80 - 120		03/11/22 03:43	1

Job ID: 410-75512-1

Lab Sample ID: 410-75512-9

**Matrix: Groundwater** 

Project/Site: D'Imperio Property Site

Client: O & M Inc.

Client Sample ID: MW-56-20220308

Lab Sample ID: 410-75512-8

Date Collected: 03/08/22 13:51 **Matrix: Groundwater** Date Received: 03/09/22 17:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 04:07	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 04:07	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:07	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 04:07	1
1,2-Dichloropropane	0.79	J	1.0	0.30	ug/L			03/11/22 04:07	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 04:07	1
Benzene	ND		1.0	0.30	ug/L			03/11/22 04:07	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 04:07	1
Chloroform	2.0		1.0	0.30	ug/L			03/11/22 04:07	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:07	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 04:07	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 04:07	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 04:07	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:07	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:07	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 04:07	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		80 - 120			-		03/11/22 04:07	1
4-Bromofluorobenzene (Surr)	92		80 - 120					03/11/22 04:07	1
Dibromofluoromethane (Surr)	91		80 - 120					03/11/22 04:07	1
Toluene-d8 (Surr)	99		80 - 120					03/11/22 04:07	1

Client Sample ID: OBW-62-20220308

Date Collected: 03/08/22 14:57

Date Received: 03/09/22 17:36

Analyte	Result C	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 04:30	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 04:30	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:30	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 04:30	1
1,2-Dichloropropane	2.3		1.0	0.30	ug/L			03/11/22 04:30	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 04:30	1
Benzene	ND		1.0	0.30	ug/L			03/11/22 04:30	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 04:30	1
Chloroform	2.3		1.0	0.30	ug/L			03/11/22 04:30	1
cis-1,2-Dichloroethene	0.61 J	J	1.0	0.30	ug/L			03/11/22 04:30	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 04:30	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 04:30	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 04:30	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:30	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:30	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 04:30	1
Surrogate	%Recovery G	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94		80 - 120			_		03/11/22 04:30	1
4-Bromofluorobenzene (Surr)	94		80 - 120					03/11/22 04:30	1
Dibromofluoromethane (Surr)	90		80 - 120					03/11/22 04:30	1

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Page 12 of 32

Client: O & M Inc.

Project/Site: D'Imperio Property Site

Client Sample ID: OBW-62-20220308

Date Collected: 03/08/22 14:57 Date Received: 03/09/22 17:36 Lab Sample ID: 410-75512-9

Matrix: Groundwater

Job ID: 410-75512-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

 Surrogate
 %Recovery
 Qualifier
 Limits
 Prepared
 Analyzed
 Dil Fac

 Toluene-d8 (Surr)
 102
 80 - 120
 03/11/22 04:30
 1

Client Sample ID: OBW-63-20220308 Lab Sample ID: 410-75512-10

Date Collected: 03/08/22 16:16 Matrix: Groundwater

Date Received: 03/09/22 17:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 04:53	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 04:53	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:53	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 04:53	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 04:53	•
2-Butanone	ND		10	0.50	ug/L			03/11/22 04:53	•
Benzene	ND		1.0	0.30	ug/L			03/11/22 04:53	
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 04:53	
Chloroform	1.2		1.0	0.30	ug/L			03/11/22 04:53	•
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:53	
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 04:53	
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 04:53	
Toluene	ND		1.0	0.20	ug/L			03/11/22 04:53	
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:53	
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 04:53	
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 04:53	

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92	80 - 120		03/11/22 04:53	1
4-Bromofluorobenzene (Surr)	94	80 - 120		03/11/22 04:53	1
Dibromofluoromethane (Surr)	91	80 - 120		03/11/22 04:53	1
Toluene-d8 (Surr)	100	80 - 120		03/11/22 04:53	1

Client Sample ID: FB-20220308

Date Collected: 03/08/22 16:35
Date Received: 03/09/22 17:36

Lab Sample ID: 410-75512-11

**Matrix: Water** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/10/22 23:52	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/10/22 23:52	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/10/22 23:52	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/10/22 23:52	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/10/22 23:52	1
2-Butanone	ND		10	0.50	ug/L			03/10/22 23:52	1
Benzene	ND		1.0	0.30	ug/L			03/10/22 23:52	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/10/22 23:52	1
Chloroform	2.4		1.0	0.30	ug/L			03/10/22 23:52	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/10/22 23:52	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/10/22 23:52	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/10/22 23:52	1
Toluene	ND		1.0	0.20	ua/L			03/10/22 23:52	1

Eurofins Lancaster Laboratories Env, LLC

Page 13 of 32

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3/11/2022

Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

Client: O & M Inc.

Client Sample ID: FB-20220308

Lab Sample ID: 410-75512-11

Date Collected: 03/08/22 16:35 Matrix: Water Date Received: 03/09/22 17:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	MD		1.0	0.30	ug/L			03/10/22 23:52	1
Trichloroethene	ND		1.0	0.30	ug/L			03/10/22 23:52	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/10/22 23:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	95		80 - 120			-		03/10/22 23:52	1
4-Bromofluorobenzene (Surr)	95		80 - 120					03/10/22 23:52	1
			80 - 120					03/10/22 23:52	1
Dibromofluoromethane (Surr)	91		00 - 120					03/10/22 23.32	,

Client Sample ID: MW-55-20220309 Lab Sample ID: 410-75512-12

Date Collected: 03/09/22 09:10 **Matrix: Groundwater** 

Date Received: 03/09/22 17:36

Method: 8260D - Volatile Orga Analyte		Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 05:16	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 05:16	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 05:16	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 05:16	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 05:16	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 05:16	1
Benzene	ND		1.0	0.30	ug/L			03/11/22 05:16	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 05:16	1
Chloroform	1.1		1.0	0.30	ug/L			03/11/22 05:16	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 05:16	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 05:16	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 05:16	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 05:16	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 05:16	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 05:16	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 05:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1.2-Dichloroethane-d4 (Surr)	93	-	80 - 120			-		03/11/22 05:16	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		80 - 120		03/11/22 05:16	1
4-Bromofluorobenzene (Surr)	92		80 - 120		03/11/22 05:16	1
Dibromofluoromethane (Surr)	91		80 - 120		03/11/22 05:16	1
Toluene-d8 (Surr)	100		80 - 120		03/11/22 05:16	1

Client Sample ID: MW-59-20220309 Lab Sample ID: 410-75512-13

Date Collected: 03/09/22 10:03 **Matrix: Groundwater** Date Received: 03/09/22 17:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 05:39	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 05:39	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 05:39	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 05:39	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 05:39	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 05:39	1

Eurofins Lancaster Laboratories Env, LLC

Page 14 of 32

Client: O & M Inc.

Project/Site: D'Imperio Property Site

**Client Sample ID: MW-59-20220309** 

Lab Sample ID: 410-75512-13 Date Collected: 03/09/22 10:03 **Matrix: Groundwater** 

Date Received: 03/09/22 17:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	ND		1.0	0.30	ug/L			03/11/22 05:39	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 05:39	1
Chloroform	2.9		1.0	0.30	ug/L			03/11/22 05:39	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 05:39	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 05:39	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 05:39	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 05:39	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 05:39	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 05:39	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 05:39	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		80 - 120			-		03/11/22 05:39	1
4-Bromofluorobenzene (Surr)	91		80 - 120					03/11/22 05:39	1
Dibromofluoromethane (Surr)	92		80 - 120					03/11/22 05:39	1
Toluene-d8 (Surr)	99		80 - 120					03/11/22 05:39	1

Client Sample ID: MW-28-1-20220309

Date Collected: 03/09/22 11:40

Date Received: 03/09/22 17:36

Lab Sample ID: 410-75512-14

**Matrix: Groundwater** 

Job ID: 410-75512-1

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND ND	1.0	0.30	ug/L			03/11/22 06:02	1
1,1-Dichloroethane	ND	1.0	0.30	ug/L			03/11/22 06:02	1
1,1-Dichloroethene	ND	1.0	0.30	ug/L			03/11/22 06:02	1
1,2-Dichloroethane	ND	1.0	0.30	ug/L			03/11/22 06:02	1
1,2-Dichloropropane	ND	1.0	0.30	ug/L			03/11/22 06:02	1
2-Butanone	ND	10	0.50	ug/L			03/11/22 06:02	1
Benzene	ND	1.0	0.30	ug/L			03/11/22 06:02	1
Chlorobenzene	ND	1.0	0.30	ug/L			03/11/22 06:02	1
Chloroform	32	1.0	0.30	ug/L			03/11/22 06:02	1
cis-1,2-Dichloroethene	ND	1.0	0.30	ug/L			03/11/22 06:02	1
Ethylbenzene	ND	1.0	0.40	ug/L			03/11/22 06:02	1
Methylene Chloride	ND	1.0	0.30	ug/L			03/11/22 06:02	1
Toluene	ND	1.0	0.20	ug/L			03/11/22 06:02	1
trans-1,2-Dichloroethene	ND	1.0	0.30	ug/L			03/11/22 06:02	1
Trichloroethene	ND	1.0	0.30	ug/L			03/11/22 06:02	1
Tetrachloroethene	ND	1.0	0.30	ug/L			03/11/22 06:02	1
Surrogato	% Pacayory Qualifier	Limite						Dil Ea

Surrogate	%Recovery Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93	80 - 120	Trepared	03/11/22 06:02	1
4-Bromofluorobenzene (Surr)	92	80 - 120		03/11/22 06:02	1
Dibromofluoromethane (Surr)	92	80 - 120		03/11/22 06:02	1
Toluene-d8 (Surr)	99	80 - 120		03/11/22 06:02	1

Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

Client Sample ID: MW-28-2-20220309

Lab Sample ID: 410-75512-15 Date Collected: 03/09/22 12:23 **Matrix: Groundwater** 

Date Received: 03/09/22 17:36

Client: O & M Inc.

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 06:25	1
1,1-Dichloroethane	0.43	J	1.0	0.30	ug/L			03/11/22 06:25	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 06:25	1
1,2-Dichloroethane	1.7		1.0	0.30	ug/L			03/11/22 06:25	1
1,2-Dichloropropane	1.4		1.0	0.30	ug/L			03/11/22 06:25	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 06:25	1
Benzene	0.42	J	1.0	0.30	ug/L			03/11/22 06:25	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 06:25	1
Chloroform	ND		1.0	0.30	ug/L			03/11/22 06:25	1
cis-1,2-Dichloroethene	3.5		1.0	0.30	ug/L			03/11/22 06:25	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 06:25	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 06:25	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 06:25	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 06:25	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 06:25	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 06:25	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	93		80 - 120					03/11/22 06:25	1
4-Bromofluorobenzene (Surr)	92		80 - 120					03/11/22 06:25	1
Dibromofluoromethane (Surr)	90		80 - 120					03/11/22 06:25	1
Toluene-d8 (Surr)	99		80 - 120					03/11/22 06:25	1

Client Sample ID: MW-43-20220309

Date Collected: 03/09/22 13:18

Date Received: 03/09/22 17:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 06:49	1
1,1-Dichloroethane	3.6		1.0	0.30	ug/L			03/11/22 06:49	1
1,1-Dichloroethene	0.69	J	1.0	0.30	ug/L			03/11/22 06:49	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 06:49	1
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 06:49	1
2-Butanone	ND		10	0.50	ug/L			03/11/22 06:49	1
Benzene	ND		1.0	0.30	ug/L			03/11/22 06:49	1
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 06:49	1
Chloroform	ND		1.0	0.30	ug/L			03/11/22 06:49	1
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 06:49	1
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 06:49	1
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 06:49	1
Toluene	ND		1.0	0.20	ug/L			03/11/22 06:49	1
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 06:49	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 06:49	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 06:49	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	96		80 - 120			_		03/11/22 06:49	1
4-Bromofluorobenzene (Surr)	92		80 - 120					03/11/22 06:49	1
Dibromofluoromethane (Surr)	91		80 - 120					03/11/22 06:49	1

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Lab Sample ID: 410-75512-16

**Matrix: Groundwater** 

Page 16 of 32

3/11/2022

Client: O & M Inc.

Project/Site: D'Imperio Property Site

Client Sample ID: MW-43-20220309

Date Collected: 03/09/22 13:18 Date Received: 03/09/22 17:36 Lab Sample ID: 410-75512-16

Matrix: Groundwater

**Matrix: Water** 

Job ID: 410-75512-1

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

%Recovery Qualifier Limits Dil Fac Prepared Analyzed Toluene-d8 (Surr) 101 80 - 120 03/11/22 06:49

Client Sample ID: FB-20220309 Lab Sample ID: 410-75512-17

Date Collected: 03/09/22 13:40

Date Received: 03/09/22 17:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/11/22 00:15	
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 00:15	•
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 00:15	•
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/11/22 00:15	
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/11/22 00:15	•
2-Butanone	ND		10	0.50	ug/L			03/11/22 00:15	•
Benzene	ND		1.0	0.30	ug/L			03/11/22 00:15	
Chlorobenzene	ND		1.0	0.30	ug/L			03/11/22 00:15	
Chloroform	2.6		1.0	0.30	ug/L			03/11/22 00:15	
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 00:15	
Ethylbenzene	ND		1.0	0.40	ug/L			03/11/22 00:15	
Methylene Chloride	ND		1.0	0.30	ug/L			03/11/22 00:15	
Toluene	ND		1.0	0.20	ug/L			03/11/22 00:15	
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 00:15	
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 00:15	
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 00:15	

Surrogate	%Recovery	Qualifier Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Su	r) 94	80 - 120		03/11/22 00:15	1
4-Bromofluorobenzene (Su	rr) 94	80 - 120		03/11/22 00:15	1
Dibromofluoromethane (Su	rr) 91	80 - 120		03/11/22 00:15	1
Toluene-d8 (Surr)	100	80 - 120		03/11/22 00:15	1

Client Sample ID: TB-20220309

Date Collected: 03/09/22 00:01

Date Received: 03/09/22 17:36

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**Matrix: Water** 

Analyte	Result Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND ND	1.0	0.30	ug/L			03/11/22 00:38	1
1,1-Dichloroethane	ND	1.0	0.30	ug/L			03/11/22 00:38	1
1,1-Dichloroethene	ND	1.0	0.30	ug/L			03/11/22 00:38	1
1,2-Dichloroethane	ND	1.0	0.30	ug/L			03/11/22 00:38	1
1,2-Dichloropropane	ND	1.0	0.30	ug/L			03/11/22 00:38	1
2-Butanone	ND	10	0.50	ug/L			03/11/22 00:38	1
Benzene	ND	1.0	0.30	ug/L			03/11/22 00:38	1
Chlorobenzene	ND	1.0	0.30	ug/L			03/11/22 00:38	1
Chloroform	ND	1.0	0.30	ug/L			03/11/22 00:38	1
cis-1,2-Dichloroethene	ND	1.0	0.30	ug/L			03/11/22 00:38	1
Ethylbenzene	ND	1.0	0.40	ug/L			03/11/22 00:38	1
Methylene Chloride	ND	1.0	0.30	ug/L			03/11/22 00:38	1
Toluene	ND	1.0	0.20	ug/L			03/11/22 00:38	1

Eurofins Lancaster Laboratories Env, LLC

Page 17 of 32

6

3/11/2022

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

Client Sample ID: TB-20220309

Lab Sample ID: 410-75512-18

**Matrix: Water** 

Date Collected: 03/09/22 00:01 Date Received: 03/09/22 17:36

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/11/22 00:38	1
Trichloroethene	ND		1.0	0.30	ug/L			03/11/22 00:38	1
Tetrachloroethene	ND		1.0	0.30	ug/L			03/11/22 00:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	92		80 - 120			-		03/11/22 00:38	1
4-Bromofluorobenzene (Surr)	92		80 - 120					03/11/22 00:38	1
Dibromofluoromethane (Surr)	92		80 - 120					03/11/22 00:38	1
Toluene-d8 (Surr)	101		80 - 120					03/11/22 00:38	1

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# **Surrogate Summary**

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

# Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Groundwater Prep Type: Total/NA

				Percent Sui	rrogate Recovery (A	Acceptance Limi
		DCA	BFB	DBFM	TOL	
ab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)	
10-75512-1	MW-79-20220307	93	92	92	101	
10-75512-1 MS	MW-79-20220307 MS	91	93	93	99	
10-75512-1 MSD	MW-79-20220307 MSD	93	93	91	100	
10-75512-2	MW-80-20220307	91	93	90	99	
10-75512-3	MW-74-20220307	92	94	89	101	
10-75512-5	MW-41-20220308	92	95	92	100	
10-75512-6	MW-24-1-20220308	95	93	92	100	
10-75512-7	MW-49-20220308	91	94	91	100	
10-75512-8	MW-56-20220308	95	92	91	99	
10-75512-9	OBW-62-20220308	94	94	90	102	
10-75512-10	OBW-63-20220308	92	94	91	100	
10-75512-12	MW-55-20220309	93	92	91	100	
10-75512-13	MW-59-20220309	93	91	92	99	
10-75512-14	MW-28-1-20220309	93	92	92	99	
10-75512-15	MW-28-2-20220309	93	92	90	99	
10-75512-16	MW-43-20220309	96	92	91	101	

#### **Surrogate Legend**

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

# Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water Prep Type: Total/NA

				Percent Sui	rrogate Reco	ery (Accepta
		DCA	BFB	DBFM	TOL	
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)	
410-75512-4	FB-20220307	92	93	90	100	
410-75512-11	FB-20220308	95	95	91	101	
410-75512-17	FB-20220309	94	94	91	100	
410-75512-18	TB-20220309	92	92	92	101	
LCS 410-232382/4	Lab Control Sample	92	92	93	100	
MB 410-232382/6	Method Blank	94	93	91	100	

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

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Page 19 of 32

3

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Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

# Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-232382/6

**Matrix: Water** 

Client: O & M Inc.

Analysis Batch: 232382

Client Sample ID: Method Blank Prep Type: Total/NA

	MB MB							
Analyte	Result Qua	lifier RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND ND	1.0	0.30	ug/L			03/10/22 23:05	1
1,1-Dichloroethane	ND	1.0	0.30	ug/L			03/10/22 23:05	1
1,1-Dichloroethene	ND	1.0	0.30	ug/L			03/10/22 23:05	1
1,2-Dichloroethane	ND	1.0	0.30	ug/L			03/10/22 23:05	1
1,2-Dichloropropane	ND	1.0	0.30	ug/L			03/10/22 23:05	1
2-Butanone	ND	10	0.50	ug/L			03/10/22 23:05	1
Benzene	ND	1.0	0.30	ug/L			03/10/22 23:05	1
Chlorobenzene	ND	1.0	0.30	ug/L			03/10/22 23:05	1
Chloroform	ND	1.0	0.30	ug/L			03/10/22 23:05	1
cis-1,2-Dichloroethene	ND	1.0	0.30	ug/L			03/10/22 23:05	1
Ethylbenzene	ND	1.0	0.40	ug/L			03/10/22 23:05	1
Methylene Chloride	ND	1.0	0.30	ug/L			03/10/22 23:05	1
Toluene	ND	1.0	0.20	ug/L			03/10/22 23:05	1
trans-1,2-Dichloroethene	ND	1.0	0.30	ug/L			03/10/22 23:05	1
Trichloroethene	ND	1.0	0.30	ug/L			03/10/22 23:05	1
Tetrachloroethene	ND	1.0	0.30	ug/L			03/10/22 23:05	1

MB MB

MR MR

Surrogate	%Recovery	Qualifier Limits	Prepared	d Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	94	80 - 12	20	03/10/22 23:05	1
4-Bromofluorobenzene (Surr)	93	80 - 12	20	03/10/22 23:05	1
Dibromofluoromethane (Surr)	91	80 - 12	20	03/10/22 23:05	1
Toluene-d8 (Surr)	100	80 - 12	20	03/10/22 23:05	1

Lab Sample ID: LCS 410-232382/4

**Matrix: Water** 

Analysis Batch: 232382

Client Sample ID: Lab Control Sample Prep Type: Total/NA

Analysis Daton. 202002							
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	20.0	16.0		ug/L		80	67 - 126
1,1-Dichloroethane	20.0	16.1		ug/L		80	80 - 120
1,1-Dichloroethene	20.0	17.1		ug/L		85	80 - 131
1,2-Dichloroethane	20.0	17.1		ug/L		86	73 - 124
1,2-Dichloropropane	20.0	16.6		ug/L		83	80 - 120
2-Butanone	250	212		ug/L		85	59 _ 135
Benzene	20.0	16.4		ug/L		82	80 - 120
Chlorobenzene	20.0	17.7		ug/L		88	80 - 120
Chloroform	20.0	17.0		ug/L		85	80 - 120
cis-1,2-Dichloroethene	20.0	17.0		ug/L		85	80 - 125
Ethylbenzene	20.0	17.3		ug/L		87	80 - 120
Methylene Chloride	20.0	17.7		ug/L		88	80 - 120
Toluene	20.0	17.1		ug/L		86	80 - 120
trans-1,2-Dichloroethene	20.0	16.6		ug/L		83	80 - 126
Trichloroethene	20.0	16.2		ug/L		81	80 - 120
Tetrachloroethene	20.0	17.4		ug/L		87	80 - 120

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	92		80 - 120
4-Bromofluorobenzene (Surr)	92		80 - 120

Eurofins Lancaster Laboratories Env, LLC

Page 20 of 32

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Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

# Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

LCS LCS

Lab Sample ID: LCS 410-232382/4

**Matrix: Water** 

Client: O & M Inc.

Analysis Batch: 232382

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Surrogate %Recovery Qualifier Dibromofluoromethane (Surr) 93 Toluene-d8 (Surr) 100

Lab Sample ID: 410-75512-1 MS Client Sample ID: MW-79-20220307 MS

Limits

80 - 120

80 - 120

Prep Type: Total/NA

**Matrix: Groundwater** Analysis Batch: 232382

%Rec. Sample Sample Spike MS MS Analyte Result Qualifier Added Result Qualifier Unit D %Rec Limits 1,1,1-Trichloroethane ND 20.0 95 67 - 126 19.1 ug/L 1,1-Dichloroethane ND 20.0 17.9 ug/L 90 80 - 120 1,1-Dichloroethene ND 20.0 20.6 ug/L 103 80 - 131 1,2-Dichloroethane ND 20.0 17.5 ug/L 87 73 - 124 ug/L 1,2-Dichloropropane ND 20.0 18.3 92 80 - 120 2-Butanone ND 250 199 ug/L 80 59 - 135 ug/L Benzene ND 20.0 18.2 80 - 120 Chlorobenzene ND 20.0 18.9 ug/L 95 80 - 120 Chloroform 0.65 20.0 19.0 ug/L 92 80 - 120 cis-1,2-Dichloroethene ND 20.0 18.7 ug/L 93 80 - 125 Ethylbenzene ND 20.0 19.5 ug/L 97 80 - 120 ND 20.0 Methylene Chloride 19.0 ug/L 95 80 - 120 ND 20.0 94 80 - 120 Toluene 18.8 ug/L trans-1.2-Dichloroethene ND 20.0 19.0 ug/L 95 80 - 126 Trichloroethene ND 20.0 17.9 ug/L 89 80 - 120 Tetrachloroethene ND 20.3 101 80 - 120 20.0 ug/L

MS MS

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	91		80 - 120
4-Bromofluorobenzene (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	93		80 - 120
Toluene-d8 (Surr)	99		80 - 120

Lab Sample ID: 410-75512-1 MSD Client Sample ID: MW-79-20220307 MSD **Matrix: Groundwater** Prep Type: Total/NA

Analysis Batch: 232382

•	Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Analyte	Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
1,1,1-Trichloroethane	ND		20.0	18.7		ug/L		94	67 - 126	2	30
1,1-Dichloroethane	ND		20.0	18.0		ug/L		90	80 - 120	1	30
1,1-Dichloroethene	ND		20.0	20.2		ug/L		101	80 - 131	2	30
1,2-Dichloroethane	ND		20.0	18.1		ug/L		90	73 - 124	3	30
1,2-Dichloropropane	ND		20.0	18.8		ug/L		94	80 - 120	3	30
2-Butanone	ND		250	204		ug/L		82	59 - 135	3	30
Benzene	ND		20.0	18.6		ug/L		93	80 - 120	3	30
Chlorobenzene	ND		20.0	19.5		ug/L		98	80 - 120	3	30
Chloroform	0.65	J	20.0	19.4		ug/L		94	80 - 120	2	30
cis-1,2-Dichloroethene	ND		20.0	19.1		ug/L		95	80 - 125	2	30
Ethylbenzene	ND		20.0	20.0		ug/L		100	80 - 120	3	30
Methylene Chloride	ND		20.0	18.6		ug/L		93	80 - 120	2	30

Eurofins Lancaster Laboratories Env, LLC

Page 21 of 32

3/11/2022

# **QC Sample Results**

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

# Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample	ID: 410-75512-1	MSD

**Matrix: Groundwater** Analysis Batch: 232382

Client Sample ID:	MW-79-20220307 MSD
	Prop Type: Total/NA

Prep Type: Total/NA

Sample	Sample	Spike	MSD	MSD				%Rec.		RPD
Result	Qualifier	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
ND		20.0	19.6		ug/L		98	80 - 120	4	30
ND		20.0	19.1		ug/L		96	80 - 126	0	30
ND		20.0	18.8		ug/L		94	80 - 120	5	30
ND		20.0	20.8		ug/L		104	80 - 120	3	30
	Result ND ND ND	ND ND	Result         Qualifier         Added           ND         20.0           ND         20.0           ND         20.0	Result         Qualifier         Added         Result           ND         20.0         19.6           ND         20.0         19.1           ND         20.0         18.8	Result         Qualifier         Added         Result         Qualifier           ND         20.0         19.6           ND         20.0         19.1           ND         20.0         18.8	Result         Qualifier         Added         Result         Qualifier         Unit           ND         20.0         19.6         ug/L           ND         20.0         19.1         ug/L           ND         20.0         18.8         ug/L	Result         Qualifier         Added         Result         Qualifier         Unit         D           ND         20.0         19.6         ug/L           ND         20.0         19.1         ug/L           ND         20.0         18.8         ug/L	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec           ND         20.0         19.6         ug/L         98           ND         20.0         19.1         ug/L         96           ND         20.0         18.8         ug/L         94	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits           ND         20.0         19.6         ug/L         98         80 - 120           ND         20.0         19.1         ug/L         96         80 - 126           ND         20.0         18.8         ug/L         94         80 - 120	Result         Qualifier         Added         Result         Qualifier         Unit         D         %Rec         Limits         RPD           ND         20.0         19.6         ug/L         98         80 - 120         4           ND         20.0         19.1         ug/L         96         80 - 126         0           ND         20.0         18.8         ug/L         94         80 - 120         5

	MSD	MSD	
Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	93		80 - 120
4-Bromofluorobenzene (Surr)	93		80 - 120
Dibromofluoromethane (Surr)	91		80 - 120
Toluene-d8 (Surr)	100		80 - 120

# **QC Association Summary**

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

# **GC/MS VOA**

# Analysis Batch: 232382

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batcl
410-75512-1	MW-79-20220307	Total/NA	Groundwater	8260D	
410-75512-2	MW-80-20220307	Total/NA	Groundwater	8260D	
410-75512-3	MW-74-20220307	Total/NA	Groundwater	8260D	
410-75512-4	FB-20220307	Total/NA	Water	8260D	
410-75512-5	MW-41-20220308	Total/NA	Groundwater	8260D	
410-75512-6	MW-24-1-20220308	Total/NA	Groundwater	8260D	
410-75512-7	MW-49-20220308	Total/NA	Groundwater	8260D	
410-75512-8	MW-56-20220308	Total/NA	Groundwater	8260D	
410-75512-9	OBW-62-20220308	Total/NA	Groundwater	8260D	
410-75512-10	OBW-63-20220308	Total/NA	Groundwater	8260D	
410-75512-11	FB-20220308	Total/NA	Water	8260D	
410-75512-12	MW-55-20220309	Total/NA	Groundwater	8260D	
410-75512-13	MW-59-20220309	Total/NA	Groundwater	8260D	
410-75512-14	MW-28-1-20220309	Total/NA	Groundwater	8260D	
410-75512-15	MW-28-2-20220309	Total/NA	Groundwater	8260D	
410-75512-16	MW-43-20220309	Total/NA	Groundwater	8260D	
410-75512-17	FB-20220309	Total/NA	Water	8260D	
410-75512-18	TB-20220309	Total/NA	Water	8260D	
MB 410-232382/6	Method Blank	Total/NA	Water	8260D	
LCS 410-232382/4	Lab Control Sample	Total/NA	Water	8260D	
410-75512-1 MS	MW-79-20220307 MS	Total/NA	Groundwater	8260D	
410-75512-1 MSD	MW-79-20220307 MSD	Total/NA	Groundwater	8260D	

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**Matrix: Groundwater** 

**Matrix: Groundwater** 

**Matrix: Water** 

Client: O & M Inc. Project/Site: D'Imperio Property Site

Client Sample ID: MW-79-20220307

Date Collected: 03/07/22 11:50 Date Received: 03/09/22 17:36 Lab Sample ID: 410-75512-1

Lab Sample ID: 410-75512-3

Lab Sample ID: 410-75512-5

Lab Sample ID: 410-75512-7

**Matrix: Groundwater** 

**Matrix: Groundwater** 

**Matrix: Groundwater** 

ELLE

**Matrix: Groundwater** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	232382	03/11/22 01:01	K4WN	ELLE

Client Sample ID: MW-80-20220307 Lab Sample ID: 410-75512-2

Date Collected: 03/07/22 13:13 Date Received: 03/09/22 17:36

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260D			232382	03/11/22 02:11	K4WN	ELLE	

**Client Sample ID: MW-74-20220307** 

Analysis

8260D

Date Collected: 03/07/22 15:33 Date Received: 03/09/22 17:36

Date Received. 03/	09/22 17.30								
	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	

Client Sample ID: FB-20220307 Lab Sample ID: 410-75512-4

232382 03/11/22 02:34 K4WN

Date Collected: 03/07/22 16:10

Date Received: 03/09/22 17:36

Total/NA

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D			232382	03/10/22 23:28	K4WN	ELLE

Client Sample ID: MW-41-20220308

Date Collected: 03/08/22 10:01 Date Received: 03/09/22 17:36

_	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260D			232382	03/11/22 02:57	K4WN	ELLE	

Client Sample ID: MW-24-1-20220308 Lab Sample ID: 410-75512-6

Date Collected: 03/08/22 10:55

Date Received: 03/09/22 17:36

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260D			232382	03/11/22 03:20	K4WN	ELLE	

Client Sample ID: MW-49-20220308

Date	Received:	03/09/22 17:36	
Date	Collected:	03/08/22 12:54	

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	232382	03/11/22 03:43	K4WN	ELLE

Eurofins Lancaster Laboratories Env, LLC

Client: O & M Inc.

Project/Site: D'Imperio Property Site

Client Sample ID: MW-56-20220308

Date Collected: 03/08/22 13:51 Date Received: 03/09/22 17:36 Lab Sample ID: 410-75512-8

**Matrix: Groundwater** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	232382	03/11/22 04:07	K4WN	ELLE

Client Sample ID: OBW-62-20220308

Lab Sample ID: 410-75512-9

**Matrix: Groundwater** 

Date Collected: 03/08/22 14:57 Date Received: 03/09/22 17:36

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D	· <del></del>		232382	03/11/22 04:30	K4WN	ELLE

Client Sample ID: OBW-63-20220308

Lab Sample ID: 410-75512-10 Date Collected: 03/08/22 16:16 **Matrix: Groundwater** 

**Matrix: Groundwater** 

Date Received: 03/09/22 17:36

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	232382	03/11/22 04:53	K4WN	ELLE

Client Sample ID: FB-20220308 Lab Sample ID: 410-75512-11

Date Collected: 03/08/22 16:35 **Matrix: Water** 

Date Received: 03/09/22 17:36

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	232382	03/10/22 23:52	K4WN	ELLE

**Client Sample ID: MW-55-20220309** Lab Sample ID: 410-75512-12

Date Collected: 03/09/22 09:10 **Matrix: Groundwater** Date Received: 03/09/22 17:36

Batch Dilution Batch Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab

Total/NA Analysis 232382 03/11/22 05:16 K4WN ELLE

Client Sample ID: MW-59-20220309 Lab Sample ID: 410-75512-13

Date Collected: 03/09/22 10:03 Date Received: 03/09/22 17:36

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Δnalveis	8260D		1	232382	03/11/22 05:39	K4\WN	FILE

Client Sample ID: MW-28-1-20220309 Lab Sample ID: 410-75512-14

Date Collected: 03/09/22 11:40 **Matrix: Groundwater** 

Date Received: 03/09/22 17:36

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D			232382	03/11/22 06:02	K4WN	ELLE

#### Lab Chronicle

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

Client Sample ID: MW-28-2-20220309

Lab Sample ID: 410-75512-15 Date Collected: 03/09/22 12:23

**Matrix: Groundwater** 

Date Received: 03/09/22 17:36

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	232382	03/11/22 06:25	K4WN	ELLE

Client Sample ID: MW-43-20220309 Lab Sample ID: 410-75512-16

**Matrix: Groundwater** 

Date Collected: 03/09/22 13:18 Date Received: 03/09/22 17:36

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D			232382	03/11/22 06:49	K4WN	ELLE

Client Sample ID: FB-20220309 Lab Sample ID: 410-75512-17

Date Collected: 03/09/22 13:40 **Matrix: Water** Date Received: 03/09/22 17:36

Batch Batch Dilution Batch Prepared **Prep Type** Туре Method Run Factor Number or Analyzed Analyst Lab

Total/NA 8260D 232382 03/11/22 00:15 K4WN ELLE Analysis

Client Sample ID: TB-20220309 Lab Sample ID: 410-75512-18

Date Collected: 03/09/22 00:01 **Matrix: Water** 

Date Received: 03/09/22 17:36

Batch Dilution Batch Batch Prepared Prep Type Method Туре Run Factor Number or Analyzed Analyst Lab ELLE 8260D 232382 03/11/22 00:38 K4WN Total/NA Analysis

**Laboratory References:** 

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# **Accreditation/Certification Summary**

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

# Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	
New Jersey	NELAP	PA011	06-30-22

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# **Method Summary**

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

#### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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# **Sample Summary**

Client: O & M Inc. Job ID: 410-75512-1

Project/Site: D'Imperio Property Site

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-75512-1	MW-79-20220307	Groundwater	03/07/22 11:50	03/09/22 17:36
410-75512-2	MW-80-20220307	Groundwater	03/07/22 13:13	03/09/22 17:36
410-75512-3	MW-74-20220307	Groundwater	03/07/22 15:33	03/09/22 17:36
410-75512-4	FB-20220307	Water	03/07/22 16:10	03/09/22 17:36
410-75512-5	MW-41-20220308	Groundwater	03/08/22 10:01	03/09/22 17:36
410-75512-6	MW-24-1-20220308	Groundwater	03/08/22 10:55	03/09/22 17:36
410-75512-7	MW-49-20220308	Groundwater	03/08/22 12:54	03/09/22 17:36
410-75512-8	MW-56-20220308	Groundwater	03/08/22 13:51	03/09/22 17:36
410-75512-9	OBW-62-20220308	Groundwater	03/08/22 14:57	03/09/22 17:36
410-75512-10	OBW-63-20220308	Groundwater	03/08/22 16:16	03/09/22 17:36
410-75512-11	FB-20220308	Water	03/08/22 16:35	03/09/22 17:36
410-75512-12	MW-55-20220309	Groundwater	03/09/22 09:10	03/09/22 17:36
410-75512-13	MW-59-20220309	Groundwater	03/09/22 10:03	03/09/22 17:36
410-75512-14	MW-28-1-20220309	Groundwater	03/09/22 11:40	03/09/22 17:36
410-75512-15	MW-28-2-20220309	Groundwater	03/09/22 12:23	03/09/22 17:36
410-75512-16	MW-43-20220309	Groundwater	03/09/22 13:18	03/09/22 17:36
410-75512-17	FB-20220309	Water	03/09/22 13:40	03/09/22 17:36
410-75512-18	TB-20220309	Water	03/09/22 00:01	03/09/22 17:36

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# **Chain of Custody Record**

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Environment Testing America

10-75512 Chain of Custody	Sampler MH	M 11.	2 K		PM:	arbas	~ ^	Carrier Track	ng No(s).	COC No.
Client Contact	Phone	1 ( / /		E-M	eyandt, B	arbara	3 A	State of Ongo	1.	410-50845-10389.1 Page
Charles Meyn				Bar	rbara.We	eyandi	t@eurofinset.com			Page 1 of 3
Company O & M Inc.						Analysis	Requested		Job#	
Address	Due Date Request	ed:								Preservation Codes:
450 Montbrook Lane City	TAT Requested (d	ays):			-					A - HCL M - Hexane B - NaOH N - None
Knoxville										C - Zn Acetate O - AsNaO2
State, Zip: TN, 37919-2705	Compliance Proje	ct: A Yes	ΔNo						198	E - NaHSO4 Q - Na2SO3
Phone:	PO#									F - MeOH R - Na2S2O3 G - Amchlor S - H2SO4
609-868-0447(Tel) Email:	382A220112 WO#				or No)					H - Ascorbic Acid T - TSP Dodecahydrate I - Ice U - Acetone
cmeyn@brwncald.com					S OF	, s			2	J - DI Water V - MCAA K - EDTA W - pH 4-5
Project Name D'Imperio Property Site	Project #: 41002088				mple (Yes	, vocs			containers	L - EDA Z - other (specify)
Site:	SSOW#				du	ag				Other:
New Jersey	-	1			- 80 - 80 - 80	8			Prof	
			Sample Type	Matrix (w-water,	Filtered m MS/n	- (MOD) Monthly			Total Number	
		Sample	(C=comp,	Sesolid. Cewas te/oil.	PE	8260D -			5	
Sample Identification	Sample Date	Time		BT-Tissue, A-Al		B2(				Special Instructions/Note:
				ation Code:	XX	A				A 1
MW-79-20126307 (MS/MSA)	03/07/22	1150	(-	GW	NY	X			9	Perforn (MS/MS)
MW-80-2022030) MW-74-2022036)		1313	F	GW	NN	X			3	
MV-74-20210367		1233	G	GW	NN	X			3	
FB-20220307		1610	G	IA	NN	X			2	
Mw-41-20220308	63/08/21	1001	4	GW	NN	X			2	
Mh-24-1-20726308		1055	G	Ew	NN	X			3	
Mu-49-20220308		1254	6	EW	NN	1			3	
MW-56-20226308		1351	( <del>-</del>	GW	NN	X			Į.	
OBW-62-20220508		1457	G	EW	hn	X			3	
1BW-63-20220308	V	1616	G	GW	NN	X				
FB-2022 0308	4	1635	6	XT	MM				3	
Possible Hazard Identification					Sa	mple	Disposal ( A fee may	be ass essed if	samples are retain	ed longer than 1 month)
Non-Hazard Flammable Skin Irritant Po		own	Radiologica	1			eturn To Client Instructions/QC Requir	Oisposal By	Lab Arci	nive For Months
60	=quis					eciai i	mstructions/QC (requir			
Empty Kit Relinquished by		Date:			Time:	-	P	Method	of Shipment	
Relinquistable MAtone	03/69/2	2 1	130	Company		Rece	Juill		3/9/22	1.1-28 Company
Relinquished	Date/Time	_ /	236	Company		Recei	ived by		Date/Time	Company
Relinquished by	Date/Time			Company		Recei	ived by Pan	_	319122	1736 EUET
Custody Seals Intact: Custody Seal No.: nod nee	sent					Coole	er Temperature(s) °C and Of	her Remarks:	1.0°0	
Δ Yes Δ No	3011									Ver 06/08/2021

2425 New Holland Pike

**Chain of Custody Record** 

eurofins:

Envariante destrug

Lancaster, PA 17601 Phone: 717-656-2300 Fax: 717-656-2681 MHMIRK Carrier Tracking No(s) COC No Client Information Weyandt, Barbara A 410-50845-10389.3 Client Contact: Phone E-Mail State of Origin Charles Meyn Barbara Weyandt@eurofinset.com Page 3 of 3 Company PWSID Job# O & M Inc. **Analysis Requested** Address Due Date Requested: Preservation Codes: 450 Montbrook Lane A - HCL M - Hexane TAT Requested (days): B - NaOH N - None Knoxville Standard C - Zn Acetate O - AsNaO2 State, Zip D - Nitric Acid P - Na2O4S Compliance Project: A Yes A No TN, 37919-2705 E - NaHSO4 Q - Na2SO3 F - MeOH R - Na252O3 PO# Phone: S - H2SO4 G - Amchior 382A220112 609-868-0447(Tel) T - TSP Dodecahydrate H - Ascorbic Acid WO# I - Ice U - Acetone cmeyn@brwncald.com J - DI Water V - MCAA K - EDTA W - pH 4-5 Project Name Project #. L-EDA Z - other (specify) 41002088 D'Imperio Property Site Ö Other: SSOW# New Jersey Matrix Sample (Wewster, Type Sesolid. Sample (C=comp, Sample Date Time G=grab) BT-Tissue, A-Air Sample Identification Special Instructions/Note: Preservation Code: MW-55-20220309 03/09/22 0910 1003 GW G GW 20210309 6 GW 63/64/22 13/8 9 NUX Calw 03/04/27 6 DI 05/04/21 6 **NNX** PI Possible Hazard Identification Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month)

Return To Client Disposal By Lab Archive For \_\_\_\_\_\_ Month Non-Hazard Flammable Skin Irritant Poison B Unknown Radiological Return To Client Archive For Months Deliverable Requested: I, II, III, IV, Other (specify) Special Instructions/QC Requirements Equis

Ver 06/08/2021

E(NET

Company

Company

1736

Method of Shipment

1.0°C

Empty Kit Relinquished by

Custody Seals Intact:

Δ Yes Δ No

Custody Seal No.

Relinquished by

Relinquished by

Company

Company

Time:

Received by

Cooler Temperature(s) °C and Other Remarks:

Date

1430

# **Login Sample Receipt Checklist**

Client: O & M Inc. Job Number: 410-75512-1

Login Number: 75512 List Source: Eurofins Lancaster Laboratories Env, LLC

List Number: 1

Creator: Renner, Melissa

Question	Answer	Comment
The cooler's custody seal is intact.	N/A	Not present.
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable ( =6C, not frozen).</td <td>True</td> <td></td>	True	
Cooler Temperature is recorded.	True	
WV: Container Temperature is acceptable ( =6C, not frozen).</td <td>N/A</td> <td></td>	N/A	
WV: Container Temperature is recorded.	N/A	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
There are no discrepancies between the containers received and the COC.	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
There is sufficient vol. for all requested analyses.	True	
Is the Field Sampler's name present on COC?	True	
Sample custody seals are intact.	True	

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# **Environment Testing America**

# **ANALYTICAL REPORT**

Eurofins Lancaster Laboratories Env, LLC 2425 New Holland Pike Lancaster, PA 17601 Tel: (717)656-2300

Laboratory Job ID: 410-75949-1

Client Project/Site: D'Imperio Property Site

For:

O & M Inc. 450 Montbrook Lane Knoxville, Tennessee 37919-2705

Attn: Mr. Tom Thomas

Barb Weyandt

Authorized for release by: 3/16/2022 1:12:56 PM

Barbara Weyandt, Project Manager (717)556-7264

Barbara.Weyandt@eurofinset.com

·····LINKS ······

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The test results in this report meet all 2003 NELAC, 2009 TNI, and 2016 TNI requirements for accredited parameters, exceptions are noted in this report. This report may not be reproduced except in full, and with written approval from the laboratory. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

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Analytical test results meet all requirements of the associated regulatory program (e.g., NELAC (TNI), DoD, and ISO 17025) unless otherwise noted under the individual analysis. Data qualifiers are applied to note exceptions. Noncompliant quality control (QC) is further explained in narrative comments.

- · QC results that exceed the upper limits and are associated with non-detect samples are qualified but further narration is not required since the bias is high and does not change a non-detect result. Further narration is also not required with QC blank detection when the associated sample concentration is non-detect or more than ten times the level in the blank.
- · Matrix QC may not be reported if insufficient sample or site-specific QC samples were not submitted. In these situations, to demonstrate precision and accuracy at a batch level, a LCS/LCSD is performed, unless otherwise specified in the method.
- · Surrogate and/or isotope dilution analyte recoveries (if applicable) which are outside of the QC window are confirmed unless attributed to a dilution or otherwise noted in the narrative. Regulated compliance samples (e.g. SDWA, NPDES) must comply with the associated agency requirements/permits.

Measurement uncertainty values, as applicable, are available upon request.

Test results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have questions regarding the proper techniques of collecting samples, please contact us. We cannot be held responsible for sample integrity, however, unless sampling has been performed by a member of our staff. Times are local to the area of activity. Parameters listed in the 40 CFR Part 136 Table II as "analyze immediately" and tested in the laboratory are not performed within 15 minutes of collection.

This report shall not be reproduced except in full, without the written approval of the laboratory.

WARRANTY AND LIMITS OF LIABILITY - In accepting analytical work, we warrant the accuracy of test results for the sample as submitted. The foregoing express warranty is exclusive and is given in lieu of all other warranties, expressed or implied, except as otherwise agreed. We disclaim any other warranties, expressed or implied, including a warranty of fitness for particular purpose and warranty of merchantability. In no event shall Eurofins Lancaster Laboratories Environmental, LLC be liable for indirect, special, consequential, or incidental damages including, but not limited to, damages for loss of profit or goodwill regardless of (A) the negligence (either sole or concurrent) of Eurofins Lancaster Laboratories Environmental and (B) whether Eurofins Lancaster Laboratories Environmental has been informed of the possibility of such damages. We accept no legal responsibility for the purposes for which the client uses the test results. Except as otherwise agreed, no purchase order or other order for work shall be accepted by Eurofins Lancaster Laboratories Environmental which includes any conditions that vary from the Standard Terms and Conditions, and Eurofins Lancaster Laboratories Environmental hereby objects to any conflicting terms contained in any acceptance or order submitted by client.

Barb Weyandt

Barbara Weyandt **Project Manager** 

3/16/2022 1:12:57 PM

Laboratory Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

# **Table of Contents**

Cover Page	1
Table of Contents	3
Definitions/Glossary	4
Case Narrative	5
Detection Summary	6
Client Sample Results	8
Surrogate Summary	13
QC Sample Results	14
QC Association Summary	16
Lab Chronicle	17
Certification Summary	19
Method Summary	20
Sample Summary	21
Chain of Custody	22

# **Definitions/Glossary**

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

#### **Qualifiers**

GC		

Qualifier **Qualifier Description** Refer to Case Narrative for further detail cn Result is less than the RL but greater than or equal to the MDL and the concentration is an approximate value.

# Glossary

These commonly used abbreviations may or may not be present in this report.
Listed under the "D" column to designate that the result is reported on a dry weight basis
Percent Recovery
Result is from the primary column on a dual-column method.
Result is from the confirmation column on a dual-column method.
Contains Free Liquid
Colony Forming Unit
Contains No Free Liquid
Duplicate Error Ratio (normalized absolute difference)
Dilution Factor
Detection Limit (DoD/DOE)
Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision Level Concentration (Radiochemistry)

**EDL** Estimated Detection Limit (Dioxin) LOD Limit of Detection (DoD/DOE) LOQ Limit of Quantitation (DoD/DOE)

MCL EPA recommended "Maximum Contaminant Level" MDA Minimum Detectable Activity (Radiochemistry) MDC Minimum Detectable Concentration (Radiochemistry)

MDL Method Detection Limit ML Minimum Level (Dioxin) MPN Most Probable Number MQL Method Quantitation Limit

NC Not Calculated

ND Not Detected at the reporting limit (or MDL or EDL if shown)

NEG Negative / Absent POS Positive / Present

PQL Practical Quantitation Limit

**PRES** Presumptive QC **Quality Control** 

RER Relative Error Ratio (Radiochemistry)

RL Reporting Limit or Requested Limit (Radiochemistry)

Relative Percent Difference, a measure of the relative difference between two points RPD

TEF Toxicity Equivalent Factor (Dioxin) **TEQ** Toxicity Equivalent Quotient (Dioxin)

**TNTC** Too Numerous To Count

#### **Case Narrative**

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

Job ID: 410-75949-1

Laboratory: Eurofins Lancaster Laboratories Env, LLC

Narrative

Job Narrative 410-75949-1

#### Receipt

The samples were received on 3/11/2022 6:59 PM. Unless otherwise noted below, the samples arrived in good condition, and, where required, properly preserved and on ice. The temperature of the cooler at receipt time was 1.7°C

#### **Receipt Exceptions**

The Field Sampler was not listed on the Chain of Custody.

#### GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) associated with batch 410-233939 recovered outside acceptance criteria, low biased, for 1,1-Dichloroethene. A reporting limit (RL) standard was analyzed, and the target analyte was detected. Non-detections of the affected analytes are reported. Any detections are considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/ Glossary page.

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Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

Client Sample ID: MW-73-20220310	Lab Sample ID: 410-75949-

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	0.39	J cn	1.0	0.30	ug/L	1		8260D	Total/NA

Client Sample ID: MW-70-20220310	Lab Sample ID: 410-75949-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.50	J cn	1.0	0.30	ug/L	1	_	8260D	Total/NA
1,2-Dichloroethane	2.9	cn	1.0	0.30	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	3.2	cn	1.0	0.30	ug/L	1		8260D	Total/NA
Chloroform	2.6	cn	1.0	0.30	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	1.5	cn	1.0	0.30	ug/L	1		8260D	Total/NA
Trichloroethene	2.8	cn	1.0	0.30	ug/L	1		8260D	Total/NA

# Client Sample ID: MW-71-20220310

# Lab Sample ID: 410-75949-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	0.46	J cn	1.0	0.30	ug/L	1	_	8260D	Total/NA
1,2-Dichloroethane	1.5	cn	1.0	0.30	ug/L	1		8260D	Total/NA
1,2-Dichloropropane	5.3	cn	1.0	0.30	ug/L	1		8260D	Total/NA
Chloroform	4.3	cn	1.0	0.30	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	2.0	cn	1.0	0.30	ug/L	1		8260D	Total/NA
Trichloroethene	0.89	J cn	1.0	0.30	ug/L	1		8260D	Total/NA

# **Client Sample ID: MW-69-20220310**

# Lab Sample ID: 410-75949-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D I	Method	Prep Type
1,1-Dichloroethane	0.73	J cn	1.0	0.30	ug/L	1	_ {	8260D	Total/NA
1,2-Dichloroethane	3.7	cn	1.0	0.30	ug/L	1	8	8260D	Total/NA
1,2-Dichloropropane	6.1	cn	1.0	0.30	ug/L	1	8	8260D	Total/NA
Chloroform	3.2	cn	1.0	0.30	ug/L	1	8	8260D	Total/NA
cis-1,2-Dichloroethene	3.4	cn	1.0	0.30	ug/L	1	8	8260D	Total/NA
Trichloroethene	2.7	cn	1.0	0.30	ug/L	1	3	8260D	Total/NA

# Client Sample ID: MW-24-2-R-20220310

# Lab Sample ID: 410-75949-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
1,1-Dichloroethane	1.1	cn	1.0	0.30	ug/L	1	_	8260D	Total/NA
1,2-Dichloroethane	0.66	J cn	1.0	0.30	ug/L	1		8260D	Total/NA
Benzene	1.2	cn	1.0	0.30	ug/L	1		8260D	Total/NA
cis-1,2-Dichloroethene	4.2	cn	1.0	0.30	ug/L	1		8260D	Total/NA
Ethylbenzene	8.5	cn	1.0	0.40	ug/L	1		8260D	Total/NA
Toluene	0.82	J cn	1.0	0.20	ug/L	1		8260D	Total/NA

# Client Sample ID: FB-20220310

# Lab Sample ID: 410-75949-6

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Chloroform	2.3	cn	1.0	0.30	ug/L	1	_	8260D	Total/NA

# Client Sample ID: TB-20220310

# Lab Sample ID: 410-75949-7

No Detections.

#### Client Sample ID: DUP-20220310

# Lab Sample ID: 410-75949-8

3/16/2022

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
1,1-Dichloroethane	0.69 J cn	1.0	0.30 ug/L		8260D	Total/NA

This Detection Summary does not include radiochemical test results.

Eurofins Lancaster Laboratories Env, LLC

Page 6 of 22

# **Detection Summary**

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

# Client Sample ID: DUP-20220310 (Continued)

# Lab Sample ID: 410-75949-8

Analyte	Result Qualifier	RL	MDL Unit	Dil Fac D	Method	Prep Type
1,2-Dichloroethane	3.9 cn	1.0	0.30 ug/L		8260D	Total/NA
1,2-Dichloropropane	6.4 cn	1.0	0.30 ug/L	1	8260D	Total/NA
Chloroform	3.3 cn	1.0	0.30 ug/L	1	8260D	Total/NA
cis-1,2-Dichloroethene	3.7 cn	1.0	0.30 ug/L	1	8260D	Total/NA
Trichloroethene	2.7 cn	1.0	0.30 ug/L	1	8260D	Total/NA

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Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

**Client Sample ID: MW-73-20220310** 

Lab Sample ID: 410-75949-1 Date Collected: 03/10/22 09:26 **Matrix: Ground Water** 

Date Received: 03/11/22 18:59

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	MD	cn	1.0	0.30	ug/L			03/16/22 01:41	1
1,1-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
1,2-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
1,2-Dichloropropane	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 01:41	1
Benzene	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
Chloroform	0.39	J cn	1.0	0.30	ug/L			03/16/22 01:41	1
cis-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/16/22 01:41	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
Toluene	ND	cn	1.0	0.20	ug/L			03/16/22 01:41	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
Trichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 01:41	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	cn	80 - 120			_		03/16/22 01:41	1
4-Bromofluorobenzene (Surr)	95	cn	80 - 120					03/16/22 01:41	1
Dibromofluoromethane (Surr)	103	cn	80 - 120					03/16/22 01:41	1

80 - 120

99 cn

95 cn

103 cn

**Client Sample ID: MW-70-20220310** 

Date Collected: 03/10/22 10:45

Toluene-d8 (Surr)

Date Received: 03/11/22 18:59

4-Bromofluorobenzene (Surr)

Dibromofluoromethane (Surr)

Lab Sample ID: 410-7594	9-2
-------------------------	-----

**Matrix: Ground Water** 

03/16/22 01:41

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 02:03	1
1,1-Dichloroethane	0.50	J cn	1.0	0.30	ug/L			03/16/22 02:03	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 02:03	1
1,2-Dichloroethane	2.9	cn	1.0	0.30	ug/L			03/16/22 02:03	1
1,2-Dichloropropane	3.2	cn	1.0	0.30	ug/L			03/16/22 02:03	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 02:03	1
Benzene	ND	cn	1.0	0.30	ug/L			03/16/22 02:03	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 02:03	1
Chloroform	2.6	cn	1.0	0.30	ug/L			03/16/22 02:03	1
cis-1,2-Dichloroethene	1.5	cn	1.0	0.30	ug/L			03/16/22 02:03	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/16/22 02:03	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 02:03	1
Toluene	ND	cn	1.0	0.20	ug/L			03/16/22 02:03	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 02:03	1
Trichloroethene	2.8	cn	1.0	0.30	ug/L			03/16/22 02:03	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 02:03	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107	cn	80 - 120			-		03/16/22 02:03	1

80 - 120

80 - 120

Eurofins Lancaster Laboratories Env, LLC

03/16/22 02:03

03/16/22 02:03

Page 8 of 22

3/16/2022

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

Client Sample ID: MW-70-20220310

Date Collected: 03/10/22 10:45 Date Received: 03/11/22 18:59

Lab Sample ID: 410-75949-2 **Matrix: Ground Water** 

6

Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

%Recovery Qualifier Dil Fac Prepared Analyzed Toluene-d8 (Surr) 100 cn 80 - 120 03/16/22 02:03

Client Sample ID: MW-71-20220310 Lab Sample ID: 410-75949-3

Date Collected: 03/10/22 11:43 **Matrix: Ground Water** 

Date Received: 03/11/22 18:59

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	MD	cn	1.0	0.30	ug/L			03/16/22 02:25	1
1,1-Dichloroethane	0.46	J cn	1.0	0.30	ug/L			03/16/22 02:25	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 02:25	1
1,2-Dichloroethane	1.5	cn	1.0	0.30	ug/L			03/16/22 02:25	1
1,2-Dichloropropane	5.3	cn	1.0	0.30	ug/L			03/16/22 02:25	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 02:25	1
Benzene	ND	cn	1.0	0.30	ug/L			03/16/22 02:25	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 02:25	1
Chloroform	4.3	cn	1.0	0.30	ug/L			03/16/22 02:25	1
cis-1,2-Dichloroethene	2.0	cn	1.0	0.30	ug/L			03/16/22 02:25	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/16/22 02:25	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 02:25	1
Toluene	ND	cn	1.0	0.20	ug/L			03/16/22 02:25	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 02:25	1
Trichloroethene	0.89	J cn	1.0	0.30	ug/L			03/16/22 02:25	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 02:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108	cn	80 - 120		03/16/22 02:25	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120		03/16/22 02:25	1
Dibromofluoromethane (Surr)	104	cn	80 - 120		03/16/22 02:25	1
Toluene-d8 (Surr)	99	cn	80 - 120		03/16/22 02:25	1

Client Sample ID: MW-69-20220310

Date Received: 03/11/22 18:59

Lab Sample ID: 410-75949-4 Date Collected: 03/10/22 13:46 **Matrix: Ground Water** 

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 02:47	1
1,1-Dichloroethane	0.73	J cn	1.0	0.30	ug/L			03/16/22 02:47	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 02:47	1
1,2-Dichloroethane	3.7	cn	1.0	0.30	ug/L			03/16/22 02:47	1
1,2-Dichloropropane	6.1	cn	1.0	0.30	ug/L			03/16/22 02:47	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 02:47	1
Benzene	ND	cn	1.0	0.30	ug/L			03/16/22 02:47	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 02:47	1
Chloroform	3.2	cn	1.0	0.30	ug/L			03/16/22 02:47	1
cis-1,2-Dichloroethene	3.4	cn	1.0	0.30	ug/L			03/16/22 02:47	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/16/22 02:47	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 02:47	1
Toluene	ND	cn	1.0	0.20	ug/L			03/16/22 02:47	1

Eurofins Lancaster Laboratories Env, LLC

Page 9 of 22 3/16/2022 Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

**Client Sample ID: MW-69-20220310** 

Lab Sample ID: 410-75949-4 Date Collected: 03/10/22 13:46 **Matrix: Ground Water** 

Date Received: 03/11/22 18:59

Method: 8260D - Volatile Organ	nic Compounds I	by GC/MS (	Continued)						
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
trans-1,2-Dichloroethene	MD	cn	1.0	0.30	ug/L			03/16/22 02:47	1
Trichloroethene	2.7	cn	1.0	0.30	ug/L			03/16/22 02:47	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 02:47	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	cn	80 - 120			_		03/16/22 02:47	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120					03/16/22 02:47	1

80 - 120

80 - 120

102 cn

100 cn

Client Sample ID: MW-24-2-R-20220310 Lab Sample ID: 410-75949-5

Date Collected: 03/10/22 14:45 **Matrix: Ground Water** 

Date Received: 03/11/22 18:59

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	1.0	0.30	ug/L			03/16/22 03:09	1
1,1-Dichloroethane	1.1	cn	1.0	0.30	ug/L			03/16/22 03:09	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 03:09	1
1,2-Dichloroethane	0.66	J cn	1.0	0.30	ug/L			03/16/22 03:09	1
1,2-Dichloropropane	ND	cn	1.0	0.30	ug/L			03/16/22 03:09	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 03:09	1
Benzene	1.2	cn	1.0	0.30	ug/L			03/16/22 03:09	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 03:09	1
Chloroform	ND	cn	1.0	0.30	ug/L			03/16/22 03:09	1
cis-1,2-Dichloroethene	4.2	cn	1.0	0.30	ug/L			03/16/22 03:09	1
Ethylbenzene	8.5	cn	1.0	0.40	ug/L			03/16/22 03:09	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 03:09	1
Toluene	0.82	J cn	1.0	0.20	ug/L			03/16/22 03:09	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 03:09	1
Trichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 03:09	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 03:09	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	cn	80 - 120		03/16/22 03:09	1
4-Bromofluorobenzene (Surr)	99	cn	80 - 120		03/16/22 03:09	1
Dibromofluoromethane (Surr)	101	cn	80 - 120		03/16/22 03:09	1
Toluene-d8 (Surr)	99	cn	80 - 120		03/16/22 03:09	1

Client Sample ID: FB-20220310 Lab Sample ID: 410-75949-6 Date Collected: 03/10/22 15:00 **Matrix: Water** 

Date Received: 03/11/22 18:59

Method: 8260D - Volatile Org Analyte	•	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane			1.0	0.30		— <u> </u>		03/15/22 21:38	1
1,1-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
1,2-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
1,2-Dichloropropane	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
2-Butanone	ND	cn	10	0.50	ug/L			03/15/22 21:38	1

Eurofins Lancaster Laboratories Env, LLC

Page 10 of 22 3/16/2022

03/16/22 02:47

03/16/22 02:47

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

Client Sample ID: FB-20220310

Lab Sample ID: 410-75949-6 Date Collected: 03/10/22 15:00

Matrix: Water

Date Received: 03/11/22 18:59

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	MD	cn	1.0	0.30	ug/L			03/15/22 21:38	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
Chloroform	2.3	cn	1.0	0.30	ug/L			03/15/22 21:38	1
cis-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/15/22 21:38	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
Toluene	ND	cn	1.0	0.20	ug/L			03/15/22 21:38	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
Trichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 21:38	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	106	cn	80 - 120			_		03/15/22 21:38	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120					03/15/22 21:38	1
Dibromofluoromethane (Surr)	103	cn	80 - 120					03/15/22 21:38	1
Toluene-d8 (Surr)	100	cn	80 - 120					03/15/22 21:38	1

Client Sample ID: TB-20220310 Lab Sample ID: 410-75949-7

Date Collected: 03/04/22 00:01 **Matrix: Water** 

Date Received: 03/11/22 18:59

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
1,1-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
1,2-Dichloroethane	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
1,2-Dichloropropane	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
2-Butanone	ND	cn	10	0.50	ug/L			03/15/22 22:00	1
Benzene	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
Chloroform	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
cis-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/15/22 22:00	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
Toluene	ND	cn	1.0	0.20	ug/L			03/15/22 22:00	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
Trichloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/15/22 22:00	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107	cn	80 - 120		03/15/22 22:00	1
4-Bromofluorobenzene (Surr)	98	cn	80 - 120		03/15/22 22:00	1
Dibromofluoromethane (Surr)	102	cn	80 - 120		03/15/22 22:00	1
Toluene-d8 (Surr)	100	cn	80 - 120		03/15/22 22:00	1

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

Client Sample ID: DUP-20220310

Lab Sample ID: 410-75949-8

03/16/22 03:31

03/16/22 03:31

**Matrix: Ground Water** 

Date Collected: 03/10/22 00:00 Date Received: 03/11/22 18:59

Dibromofluoromethane (Surr)

Toluene-d8 (Surr)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	MD	cn	1.0	0.30	ug/L			03/16/22 03:31	1
1,1-Dichloroethane	0.69	J cn	1.0	0.30	ug/L			03/16/22 03:31	1
1,1-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 03:31	1
1,2-Dichloroethane	3.9	cn	1.0	0.30	ug/L			03/16/22 03:31	1
1,2-Dichloropropane	6.4	cn	1.0	0.30	ug/L			03/16/22 03:31	1
2-Butanone	ND	cn	10	0.50	ug/L			03/16/22 03:31	1
Benzene	ND	cn	1.0	0.30	ug/L			03/16/22 03:31	1
Chlorobenzene	ND	cn	1.0	0.30	ug/L			03/16/22 03:31	1
Chloroform	3.3	cn	1.0	0.30	ug/L			03/16/22 03:31	1
cis-1,2-Dichloroethene	3.7	cn	1.0	0.30	ug/L			03/16/22 03:31	1
Ethylbenzene	ND	cn	1.0	0.40	ug/L			03/16/22 03:31	1
Methylene Chloride	ND	cn	1.0	0.30	ug/L			03/16/22 03:31	1
Toluene	ND	cn	1.0	0.20	ug/L			03/16/22 03:31	1
trans-1,2-Dichloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 03:31	1
Trichloroethene	2.7	cn	1.0	0.30	ug/L			03/16/22 03:31	1
Tetrachloroethene	ND	cn	1.0	0.30	ug/L			03/16/22 03:31	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	108	cn	80 - 120			-		03/16/22 03:31	1
4-Bromofluorobenzene (Surr)	96	cn	80 - 120					03/16/22 03:31	1

80 - 120

80 - 120

104 cn

100 cn

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1/

# **Surrogate Summary**

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

# Method: 8260D - Volatile Organic Compounds by GC/MS

**Matrix: Ground Water** Prep Type: Total/NA

<del>-</del> 				Percent Sui	rrogate Reco
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-75949-1	MW-73-20220310	106 cn	95 cn	103 cn	99 cn
410-75949-2	MW-70-20220310	107 cn	95 cn	103 cn	100 cn
410-75949-3	MW-71-20220310	108 cn	96 cn	104 cn	99 cn
410-75949-4	MW-69-20220310	106 cn	96 cn	102 cn	100 cn
410-75949-5	MW-24-2-R-20220310	106 cn	99 cn	101 cn	99 cn
410-75949-8	DUP-20220310	108 cn	96 cn	104 cn	100 cn
Cump meta I amand					

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

# Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Water Prep Type: Total/NA

_		Percent Surrogate Recov			
		DCA	BFB	DBFM	TOL
Lab Sample ID	Client Sample ID	(80-120)	(80-120)	(80-120)	(80-120)
410-75949-6	FB-20220310	106 cn	96 cn	103 cn	100 cn
410-75949-7	TB-20220310	107 cn	98 cn	102 cn	100 cn
LCS 410-233939/4	Lab Control Sample	105	99	102	101
LCSD 410-233939/5	Lab Control Sample Dup	106	99	102	101
MB 410-233939/7	Method Blank	107	97	103	99

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)

BFB = 4-Bromofluorobenzene (Surr)

DBFM = Dibromofluoromethane (Surr)

TOL = Toluene-d8 (Surr)

Page 13 of 22

Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

# Method: 8260D - Volatile Organic Compounds by GC/MS

Lab Sample ID: MB 410-233939/7

**Matrix: Water** 

Client: O & M Inc.

Analysis Batch: 233939

Client Sample ID: Method Blank

**Prep Type: Total/NA** 

	MB	MB							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	ND		1.0	0.30	ug/L			03/15/22 20:32	1
1,1-Dichloroethane	ND		1.0	0.30	ug/L			03/15/22 20:32	1
1,1-Dichloroethene	ND		1.0	0.30	ug/L			03/15/22 20:32	1
1,2-Dichloroethane	ND		1.0	0.30	ug/L			03/15/22 20:32	
1,2-Dichloropropane	ND		1.0	0.30	ug/L			03/15/22 20:32	
2-Butanone	ND		10	0.50	ug/L			03/15/22 20:32	•
Benzene	ND		1.0	0.30	ug/L			03/15/22 20:32	
Chlorobenzene	ND		1.0	0.30	ug/L			03/15/22 20:32	
Chloroform	ND		1.0	0.30	ug/L			03/15/22 20:32	
cis-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/15/22 20:32	
Ethylbenzene	ND		1.0	0.40	ug/L			03/15/22 20:32	
Methylene Chloride	ND		1.0	0.30	ug/L			03/15/22 20:32	
Toluene	ND		1.0	0.20	ug/L			03/15/22 20:32	
trans-1,2-Dichloroethene	ND		1.0	0.30	ug/L			03/15/22 20:32	
Trichloroethene	ND		1.0	0.30	ug/L			03/15/22 20:32	
Tetrachloroethene	ND		1.0	0.30	ug/L			03/15/22 20:32	

	III D	III D						
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac	
1,2-Dichloroethane-d4 (Surr)	107		80 - 120	_		03/15/22 20:32	1	
4-Bromofluorobenzene (Surr)	97		80 - 120			03/15/22 20:32	1	
Dibromofluoromethane (Surr)	103		80 - 120			03/15/22 20:32	1	
Toluene-d8 (Surr)	99		80 - 120			03/15/22 20:32	1	

Lab Sample ID: LCS 410-233939/4

**Matrix: Water** 

Analysis Batch: 233939

**Client Sample ID: Lab Control Sample Prep Type: Total/NA** 

Analysis Baton. 200000							
	Spike	LCS	LCS				%Rec.
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits
1,1,1-Trichloroethane	20.0	16.1	-	ug/L		80	67 - 126
1,1-Dichloroethane	20.0	17.6		ug/L		88	80 - 120
1,1-Dichloroethene	20.0	16.8		ug/L		84	80 _ 131
1,2-Dichloroethane	20.0	18.0		ug/L		90	73 - 124
1,2-Dichloropropane	20.0	18.6		ug/L		93	80 - 120
2-Butanone	250	290		ug/L		116	59 - 135
Benzene	20.0	17.6		ug/L		88	80 - 120
Chlorobenzene	20.0	17.2		ug/L		86	80 - 120
Chloroform	20.0	17.1		ug/L		86	80 - 120
cis-1,2-Dichloroethene	20.0	17.6		ug/L		88	80 - 125
Ethylbenzene	20.0	16.7		ug/L		84	80 - 120
Methylene Chloride	20.0	17.8		ug/L		89	80 - 120
Toluene	20.0	16.7		ug/L		84	80 - 120
trans-1,2-Dichloroethene	20.0	16.5		ug/L		83	80 - 126
Trichloroethene	20.0	17.2		ug/L		86	80 - 120
Tetrachloroethene	20.0	17.2		ug/L		86	80 - 120

LCS LCS

Surrogate	%Recovery Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	105	80 - 120
4-Bromofluorobenzene (Surr)	99	80 - 120

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Page 14 of 22

#### QC Sample Results

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

#### Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCS 410-233939/4

**Matrix: Water** 

Analysis Batch: 233939

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

LCS LCS

Surrogate	%Recovery	Qualifier	Limits
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	101		80 - 120

Lab Sample ID: LCSD 410-233939/5

**Matrix: Water** 

Methylene Chloride

Trichloroethene

Tetrachloroethene

trans-1,2-Dichloroethene

Toluene

Analysis Batch: 233939

Client Sample ID: Lab Control Sample Dup

88

84

84

85

88

80 - 120

80 - 120

80 - 126

80 - 120

80 - 120

Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Unit D %Rec Limits **RPD** Limit 20.0 16.8 84 67 - 126 30 1,1,1-Trichloroethane ug/L 4 ug/L 1,1-Dichloroethane 20.0 18.0 90 80 - 120 30 1.1-Dichloroethene 20.0 17.3 ug/L 87 80 - 131 30 3 1,2-Dichloroethane 20.0 18.5 ug/L 92 73 - 124 30 ug/L 1,2-Dichloropropane 20.0 18.7 94 80 - 120 30 2-Butanone 250 293 ug/L 117 59 - 135 30 ug/L Benzene 20.0 17.8 89 80 - 120 30 Chlorobenzene 20.0 17.4 ug/L 87 80 - 120 30 Chloroform 20.0 17.4 ug/L 87 80 - 120 30 cis-1,2-Dichloroethene 20.0 17.7 ug/L 89 80 - 125 30 Ethylbenzene 20.0 16.9 ug/L 84 80 - 120 30

17.7

16.8

16.9

17.0

17.7

ug/L

ug/L

ug/L

ug/L

ug/L

20.0

20.0

20.0

20.0

20.0

LCSD LCSD

Surrogate	%Recovery	Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	106		80 - 120
4-Bromofluorobenzene (Surr)	99		80 - 120
Dibromofluoromethane (Surr)	102		80 - 120
Toluene-d8 (Surr)	101		80 - 120

Prep Type: Total/NA

30

30

30

30

30

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# **QC Association Summary**

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

#### **GC/MS VOA**

#### Analysis Batch: 233939

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
410-75949-1	MW-73-20220310	Total/NA	Ground Water	8260D	
410-75949-2	MW-70-20220310	Total/NA	Ground Water	8260D	
410-75949-3	MW-71-20220310	Total/NA	Ground Water	8260D	
410-75949-4	MW-69-20220310	Total/NA	Ground Water	8260D	
410-75949-5	MW-24-2-R-20220310	Total/NA	Ground Water	8260D	
410-75949-6	FB-20220310	Total/NA	Water	8260D	
410-75949-7	TB-20220310	Total/NA	Water	8260D	
410-75949-8	DUP-20220310	Total/NA	Ground Water	8260D	
MB 410-233939/7	Method Blank	Total/NA	Water	8260D	
LCS 410-233939/4	Lab Control Sample	Total/NA	Water	8260D	
LCSD 410-233939/5	Lab Control Sample Dup	Total/NA	Water	8260D	

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13

Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

Client Sample ID: MW-73-20220310

Date Collected: 03/10/22 09:26 Date Received: 03/11/22 18:59

Client: O & M Inc.

Lab Sample ID: 410-75949-1

**Matrix: Ground Water** 

**Matrix: Ground Water** 

**Matrix: Ground Water** 

**Matrix: Water** 

**Matrix: Water** 

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D		1	233939	03/16/22 01:41	K4WN	ELLE

Client Sample ID: MW-70-20220310 Lab Sample ID: 410-75949-2

Date Collected: 03/10/22 10:45 Date Received: 03/11/22 18:59

Batch Batch Dilution Batch Prepared Prep Type Method Factor Number or Analyzed Type Run Analyst Lab 8260D 233939 03/16/22 02:03 K4WN ELLE Total/NA Analysis

Client Sample ID: MW-71-20220310

Date Collected: 03/10/22 11:43 Date Received: 03/11/22 18:59

Lab Sample ID: 410-75949-3 **Matrix: Ground Water** 

Batch Batch Dilution Batch Prepared Prep Type Type Method Run Factor Number or Analyzed Analyst Lab

Total/NA 8260D 233939 03/16/22 02:25 K4WN ELLE Analysis

Client Sample ID: MW-69-20220310 Lab Sample ID: 410-75949-4 **Matrix: Ground Water** 

Date Collected: 03/10/22 13:46 Date Received: 03/11/22 18:59

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260D		1	233939	03/16/22 02:47	K4WN	ELLE	

Client Sample ID: MW-24-2-R-20220310 Lab Sample ID: 410-75949-5

Date Collected: 03/10/22 14:45 Date Received: 03/11/22 18:59

	Batch	Batch		Dilution	Batch	Prepared			
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab	
Total/NA	Analysis	8260D			233939	03/16/22 03:09	K4WN	FILE	

Client Sample ID: FB-20220310 Lab Sample ID: 410-75949-6

Date Collected: 03/10/22 15:00

Date Received: 03/11/22 18:59

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Analysis	8260D			233939	03/15/22 21:38	K4WN	ELLE

Client Sample ID: TB-20220310 Lab Sample ID: 410-75949-7

Date Collected: 03/04/22 00:01 Date Received: 03/11/22 18:59

		Batch	Batch		Dilution	Batch	Prepared		
Pr	ер Туре	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
To	tal/NA	Analysis	8260D		1	233939	03/15/22 22:00	K4WN	FLLE

#### **Lab Chronicle**

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

Client Sample ID: DUP-20220310

Lab Sample ID: 410-75949-8 Date Collected: 03/10/22 00:00

**Matrix: Ground Water** 

Date Received: 03/11/22 18:59

		Batch	Batch		Dilution	Batch	Prepared		
	Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
l	Total/NA	Analysis	8260D		1	233939	03/16/22 03:31	K4WN	ELLE

#### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

# **Accreditation/Certification Summary**

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

#### Laboratory: Eurofins Lancaster Laboratories Env, LLC

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	<b>Expiration Date</b>
New Jersey	NELAP	PA011	06-30-22

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## **Method Summary**

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	ELLE
5030C	Purge and Trap	SW846	ELLE

#### Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

ELLE = Eurofins Lancaster Laboratories Env, LLC, 2425 New Holland Pike, Lancaster, PA 17601, TEL (717)656-2300

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# **Sample Summary**

Client: O & M Inc. Job ID: 410-75949-1

Project/Site: D'Imperio Property Site

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
410-75949-1	MW-73-20220310	Ground Water	03/10/22 09:26	03/11/22 18:59
410-75949-2	MW-70-20220310	Ground Water	03/10/22 10:45	03/11/22 18:59
410-75949-3	MW-71-20220310	Ground Water	03/10/22 11:43	03/11/22 18:59
410-75949-4	MW-69-20220310	Ground Water	03/10/22 13:46	03/11/22 18:59
410-75949-5	MW-24-2-R-20220310	Ground Water	03/10/22 14:45	03/11/22 18:59
410-75949-6	FB-20220310	Water	03/10/22 15:00	03/11/22 18:59
410-75949-7	TB-20220310	Water	03/04/22 00:01	03/11/22 18:59
410-75949-8	DUP-20220310	Ground Water	03/10/22 00:00	03/11/22 18:59

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2425 New Holland Pike Lancaster, PA 17601 **Chain of Custody Record** 



eurofins

Environment Testing

Phone 717-656-2300 Fax 717-656-2681																	
Client Information	Sampler Lab We					Barba	ıra A	410	-75949	Chain	of Custody				C No )-50845-10389 2		
Client Contact Charles Meyn	Phone: E-M Bar					ara.Weyandt@eurofinset.com					Julio of Origin,				Page 2 of 3		
Company:	PWSID					Analysis Reg									Job#		
O & M Inc. Address	Due Date Request	ad.			7500		1 1	An	alysis	Req	uestec	<u> </u>	-	1000	D	d	
450 Montbrook Lane	Due Date Request														Preservation Co		
City	TAT Requested (d.														A - HCL B - NaOH	M - Hexane N - None	
Knoxville State, Zip:	Standard									1 1				200	C - Zn Acetate D - Nitric Acid	O - AsNaO2 P - Na2O4S	
TN, 37919-2705	Compliance Project: Δ Yes Δ No					1									E - NaHSO4	Q - Na2SO3	
Phone:	PO#:													1000	F - MeOH G - Amchlor	R - Na2S2O3 S - H2SO4	
609-868-0447(Tel) Email	382A220112 Wo#														H - Ascorbic Acid	T - TSP Dodecahydrate U - Acetone	
cmeyn@brwncald.com					(Yes, 5r No)										J - DI Water	V - MCAA	
Project Name D'Imperio Property Site	Project # 41002088					ő							1 1	星	K - EDTA L - EDA	W - pH 4-5 Z - other (specify)	
Site	SSOW#					E Z								통	Other:		
New Jersey						Mont								6			
			Sample	Matrix	E	8266D - (MOD) Monthly VOCs								per			
			Туре	(Wewater,		ξ							1 1	NET			
		Sample	(C=comp,	Sesolid, O=wasta/oil,	Field	009								Total			
Sample Identification	Sample Date	Time		BT=Tissue, A=Air		7-	District State	20 (400)	Date State	10000	Maria Jacon	30000 000	100 100 100 100	E	Special in	structions/Note:	
M. 32 0.22 0315	# 211 D	A 2 (	C C	-		Α	1000 95		200	350	36 692	2000 200	B 420	-			
Mw.73-2022 0310	03/19/37	0926	احا	(-W	17.7								$\perp$	7			
MW-70-20220310	03/10/22	1045	Ģ	GW	NN									13			
Mw-70-20220310 Mw-71-20220310	03/16/22	1143	6	6~	NN									2			
MW-69-20220310	03/10/22	1346	G	CW	NN									3			
MW-69-20220310 MW-24-2-R-20220310	63/16/24	1445	G	EW	NN									3			
FB-2022 0310	03/10/27	1500	6	DI	NN	X				П				3			
TB-2022 0310	03/04/22	1000	G	DI	NN	义								2			
Dup-20120310	63/16/21	9949	5	GW	NN	X								25			
92-5										П							
													11	83			
					$\Box$									100			
Possible Hazard Identification					Sa	mple	Dispos	al ( A	fee may	be as	sessea	if sam	oles are	retain	ed longer than	f month)	
Non-Hazard Flammable Skin Irritant Pois	son B Unkn	own 🗀 f	Radiologicai	1	] [	$\square_R$	Return To	Client		Di	sposal i	By Lab		Arch	ive For	Months	
Deliverable Requested: I, II, III, IV, Other (specify)	Equi								Requir	ement	s:						
Empty Kit Relinquished by	Date					Time.						Method of Shipment					
Reling Ashed by MANY - 2223	Date/Time 72 16: 25 Company					Received by						Da	te/fime	72	16: 25	Company	
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# **ATTACHMENT 7**

# **1H-22 Data Verification Report**

D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report

# Data Verification Report Groundwater Quality Monitoring Data

# 1<sup>st</sup> Half 2022 Semi-Annual Sampling Event, March 2022

#### Introduction

This Data Verification Report addresses the 1st half 2022 (1H22) semi-annual sampling event that was performed during the first quarter of 2022 (1Q22) at the D'Imperio Property Site. The 1H22 sampling event was performed between March 7, 2022 and March 10, 2022.

The data verification has been performed in accordance with the Long-Term Groundwater Monitoring Plan, Revision 3A" "LTGMP-3A", (Brown and Caldwell, April 2020) including the updated "Quality Assurance Project Plan" (QAPP), (Brown and Caldwell, April 2020). These documents are consistent with the "Approval with Modifications" letter from Ms. Kim O'Connell of USEPA dated March 13, 2020.

# **Summary of Findings**

The collection of the field samples for 1H22 was performed using methods and techniques as documented in the LTGMP-3A and the QAPP. Only wells monitored on a semi-annual basis were sampled as part of this event. The 1H22 sampling event included the following samples as listed in Table 2-1 of the LTGMP-3A:

- 19 monitoring wells ("MW" and "OBW" series).
- Seven (7) field Quality Assurance/Quality Control (QA/QC) samples including four (4) field blanks ("FB"), two (2) trip blanks, and one (1) blind field duplicate ("DUP").
- Samples from one (1) monitoring well were collected in triplicate to be utilized for laboratory QA/QC purposes as a matrix spike/matrix spike duplicate (MS/MSD).

One additional sample from BR-3-E was collected by the operations contractor (O&M, Inc.) from the site extraction wells per Table 2-1 of the LTGMP-3A. Results from these samples will be reported in the Semi-Annual (1H-22) Groundwater Sampling Report and the 2022 Annual Groundwater Report.

Each well was sampled for volatile organic compounds (VOCs) by 8260D. Per the revised analytical parameters specified in the LTGMP-3A, three parameters (2-butanone, chlorobenzene, and methylene chloride) that were included in prior sampling events were omitted. The non-performance standard VOC vinyl chloride was added to the analyte list.

Based on a review of field and laboratory documentation for 1H22, the field sampling program and laboratory testing have yielded acceptable results per the verification criteria as described in the LTGMP-3A and the QAPP. In review of field documentation from the 1H22 semi-annual sampling event, it has been concluded that each sample was collected and documented in accordance with the LTGMP-3A and



QAPP with no substantive deviations from these documents. Laboratory analytical data for the samples listed below have been received, reviewed, and a completeness check was performed. Following the initial review and completeness check, the electronic data deliverable (EDD) was uploaded into the existing database.

A review of the analytical data reports revealed that each sample collected during 1H22 was analyzed within the required holding times and the required analyses were performed per approved methods. The project performance criteria have been met by the laboratory Method Detection Limits (MDLs) for the analytes.

#### Sample Delivery Group (SDG) 410-75512-1

Samples from the listed sample delivery group (SDG) were collected from March 7 through March 9, 2022. Each sample in the SDG is listed below with the corresponding laboratory identification provided in parenthesis.

- MW-79-20220307 (410-755-12-1)
- MW-80-20220307 (410-755-12-2)
- MW-74-20220307 (410-755-12-3)
- FB-20220307 (410-755-12-4)
- MW-41-20220308 (410-755-12-5)
- MW-24-1-20220308 (410-755-12-6)
- MW-49-20220308 (410-755-12-7)
- MW-56-20220308 (410-755-12-8)
- OBW-62-20220308 (410-755-12-9)
- OBS-63-20220308 (410-755-12-10)
- FB-20220308 (410-755-12-11)
- MW-55-20220309 (410-755-12-12)
- MW-59-250220309 (410-755-12-13)
- MW-28-1-20220309 (410-755-12-14)
- MW-28-2-20220309 (410-755-12-15)
- MW-43-20220309 (410-755-12-16)
- FB-20220309 (410-755-12-17)
- TB-20220309 (410-755-12-18)

#### **Comparison to Prior Samples**

Based on comparison and evaluation, results from the monitoring well samples are generally consistent with previous sampling data. Data observations of note are provided for the wells listed below:

**MW-80** - The 1H22 sampling event included Lower Cohansey Detached Plume (LCDP) Sentinel well MW-80 which is located downgradient of the three LCDP extraction wells (LC-7E, LC-8E and LC-9E). No Performance Standard VOCs, excluding chloroform, were detected in MW-80. These results are consistent with prior data.

**MW-79** - The 1H22 sampling event included LCDP Sentinel well MW-79 which is located downgradient of the three LCDP extraction wells (LC-7E, LC-8E and LC-9E). No Performance Standard VOCs, excluding chloroform, were detected in in wells MW-79. These results are consistent with prior data.

**OBW-62** – The 1H22 sampling event revealed a TVOC concentration (excluding chloroform) of 2.91  $\mu$ g/L (J-qualified) in OBW-62 which is located downgradient of Lower Cohansey Main Plume extraction wells



LC-3E and LC-4E. This TVOC is a reduction from the 2H21 result of 6.78  $\mu$ g/L (J-qualified). Concentrations in this well will continue to be monitored to confirm whether the installation of new groundwater extraction pumps in extraction wells LC-3-E and LC-4-E have mitigated potential breakthrough between these wells.

MW-55, MW-56, MW-59 and OBW-63 - Constituent concentrations detected in the Lower Cohansey Main Plume sentinel wells MW-55, MW-56, MW-59 and OBW-63 were below Performance Standard levels during the 1H22 sampling event.

#### Other QA/QC Criteria Evaluation for SDG 410-75512-1

Observations of QA/QC criteria for the SDG are listed below:

- The three field blanks were found to be non-detect for each of the analyzed parameters with the exception of chloroform which was detected between 2.4 and 2.6 ug/L in each field blank.
- The trip blank analysis resulted in non-detects for each of the analyzed parameters.
- The surrogate percent recoveries were each within prescribed measurement performance criteria for each sample.
- The laboratory control sample (LCS) percent recoveries were each within prescribed measurement performance criteria.
- The MS/MSD recoveries were each within prescribed performance criteria.

#### Sample Delivery Group (SDG) 410-75949-1

Samples from the listed SDG were collected on March 10, 2022. Each sample in the SDG is listed below with the corresponding laboratory identification provided in parenthesis.

- MW-73-20220310 (410-75949-1)
- MW-70-20220310 (410-75949-2)
- MW-71-20220310 (410-75949-3)
- MW-69-20220310 (410-75949-4)
- MW-24-2-R-20220310 (410-75949-5)
- FB-20220310 (410-75949-6)
- TB-20220310 (410-75949-7)
- DUP-20220310 (410-75949-8) Duplicate of MW-69-20220310

#### **Comparison to Prior Samples**

Based on comparison and evaluation, results from the monitoring well samples were generally consistent with previous sampling data. Data observations of note are provided for the wells listed below:

**MW-71** - MW-71 is intended to define the southeasterly sidegradient extent of the LCDP (toward the Hamilton Preserve) as discussed in the LCDP Delineation Report (Brown and Caldwell, August 2014). For this sampling event, MW-71 was found to have a TVOC concentration of 10.15 ug/l, which is a decrease from the concentration of 17.24  $\mu$ g/L detected during the 2H21 sampling event.

**MW-69** – At the time of installation, MW-69 was positioned in the approximate center of mass of the LCDP. In the 1H21 sampling event, the TVOC concentration in MW-69 was 16.63  $\mu$ g/L, a decrease from the 19.63  $\mu$ g/L concentration detected in 2H21 and well below the 120.8  $\mu$ g/L concentration detected during the 3Q19 sampling event. This lower range of concentrations in recent sampling events suggests that the center of mass of the LCDP has migrated downgradient towards the extraction well array.



#### Other QA/QC Criteria Evaluation for SDG 410-75949-1

Observations of QA/QC criteria for the SDG are listed below:

- The analysis of the field blank, FB-20220310 resulted in non-detects for each of the analyzed parameters.
- The trip blank analysis resulted in non-detects for each of the analyzed parameters.
- The sample results for the duplicate sample DUP-20220310 were consistent with the results of the parent sample MW-69-20220310.
- The surrogate percent recoveries were each within prescribed measurement performance criteria for each sample.
- The laboratory control sample (LCS) percent recoveries were each within prescribed measurement performance criteria.



# **ATTACHMENT 8**

Long-Term TVOC Trends (Graphs for each Aquifer)

D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report

FIGURE 3-13
TVOC\* TRENDS IN SELECT WELLS (1 of 2)
D'Imperio Property Site
Bridgeton Aquifer Plume

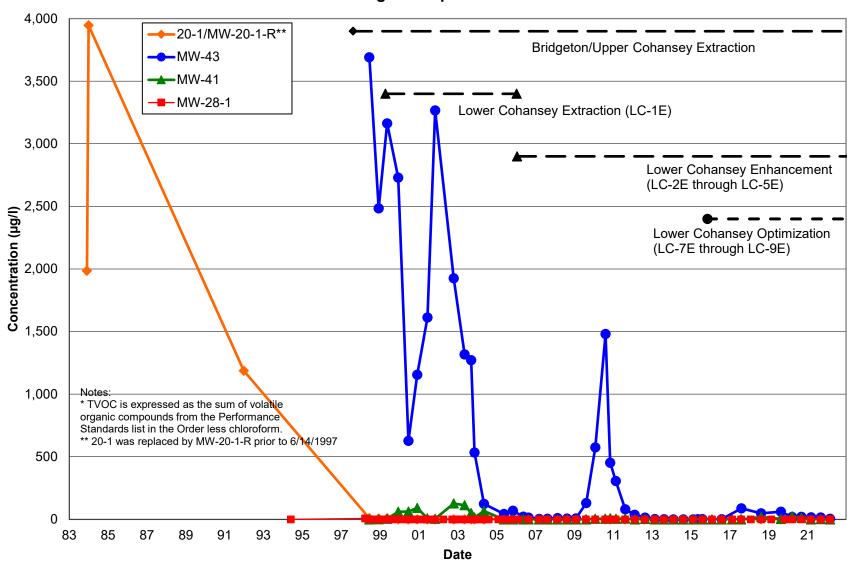


FIGURE 3-14
TVOC\* TRENDS IN SELECT WELLS (2 of 2)
D'Imperio Property Site
Bridgeton Aquifer Plume

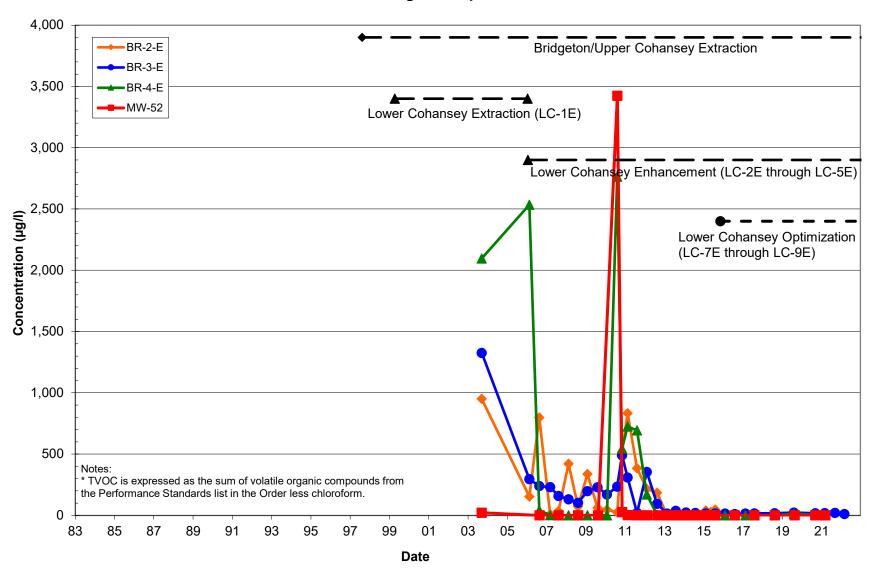


FIGURE 3-15
TVOC\* TRENDS IN SELECT WELLS
D'Imperio Property Site
Upper Cohansey Aquifer Plume

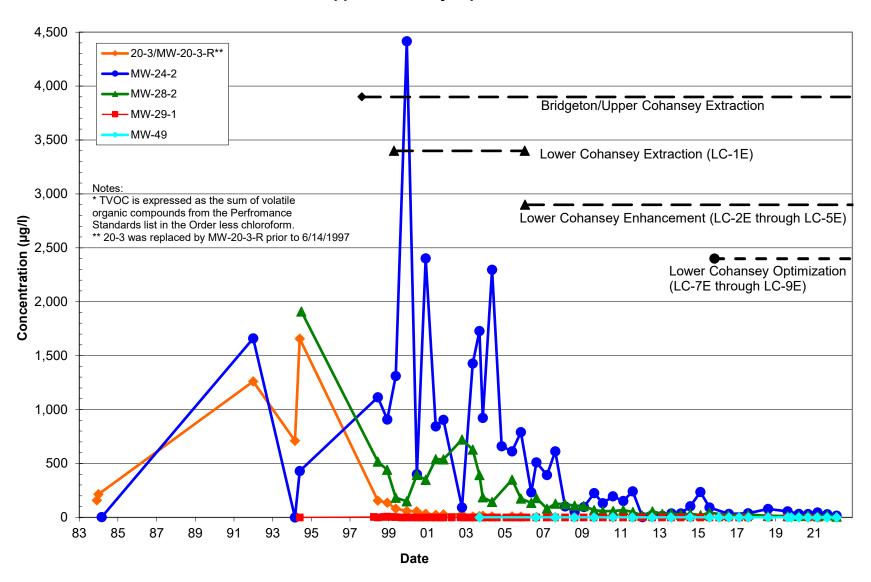


FIGURE 3-16
TVOC\* TRENDS IN SELECT WELLS
D'Imperio Property Site
Lower Cohansey Main Plume

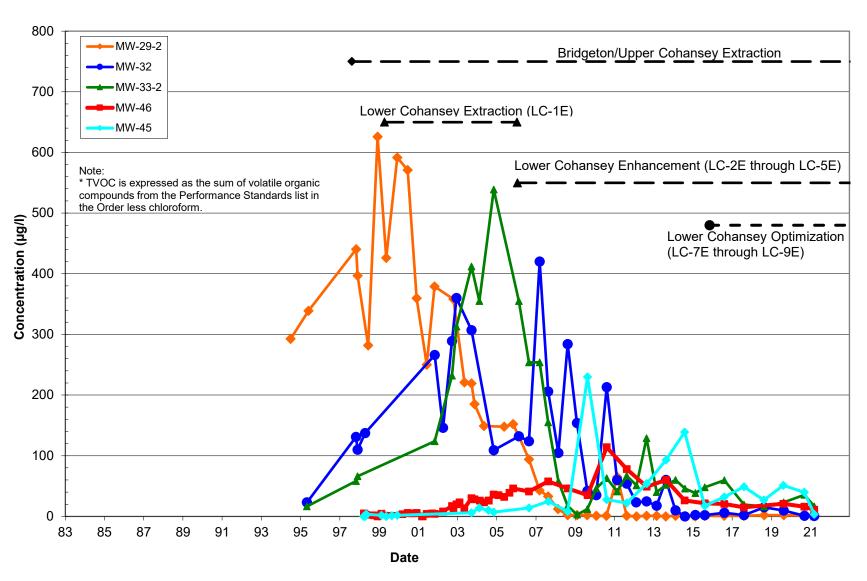


Figure 3-17
TVOC\* Trends in Sentinel Wells
D'Imperio Property Site
Lower Cohansey Main Plume

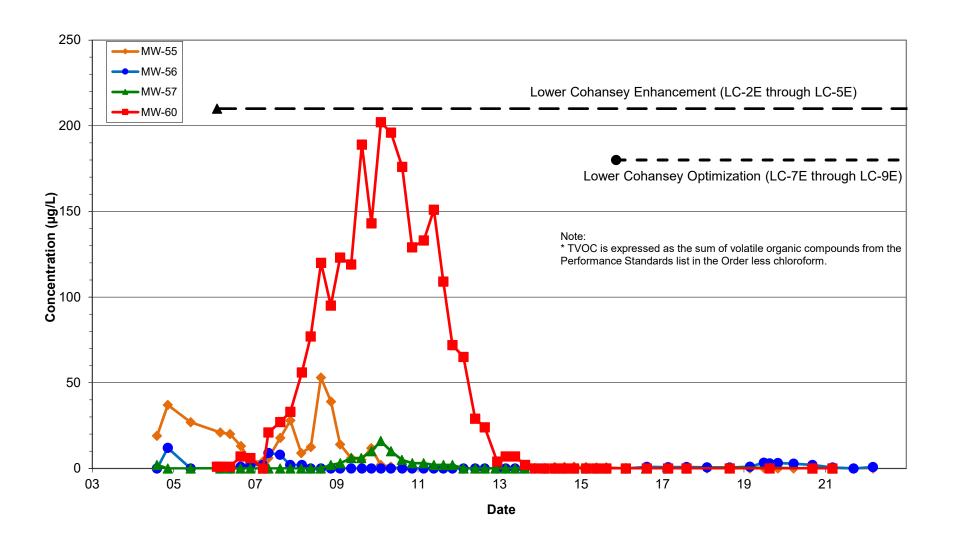


Figure 3-18
TVOC\* Trends in Side-Gradient Wells
D'Imperio Property Site
Lower Cohansey Main Plume

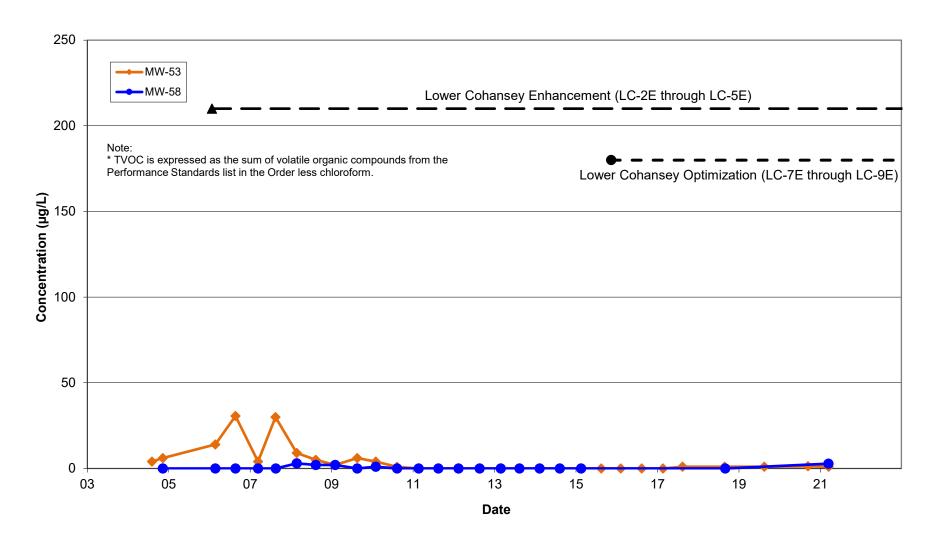


Figure 3-19
TVOC\* Trends in Plume Wells
D'Imperio Property Site
Lower Cohansey Main Plume

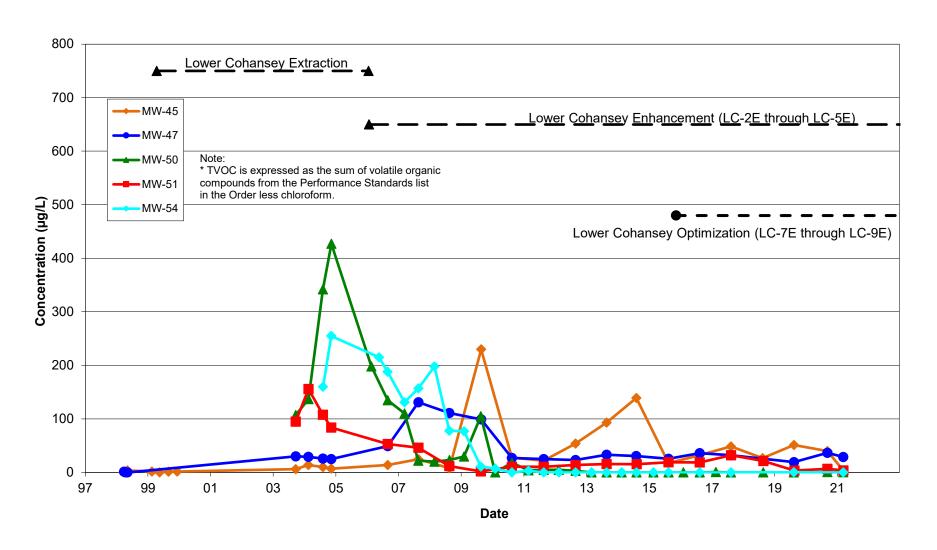


Figure 3-20
TVOC\* Trends in Observation Wells
D'Imperio Property Site
Lower Cohansey Main Plume

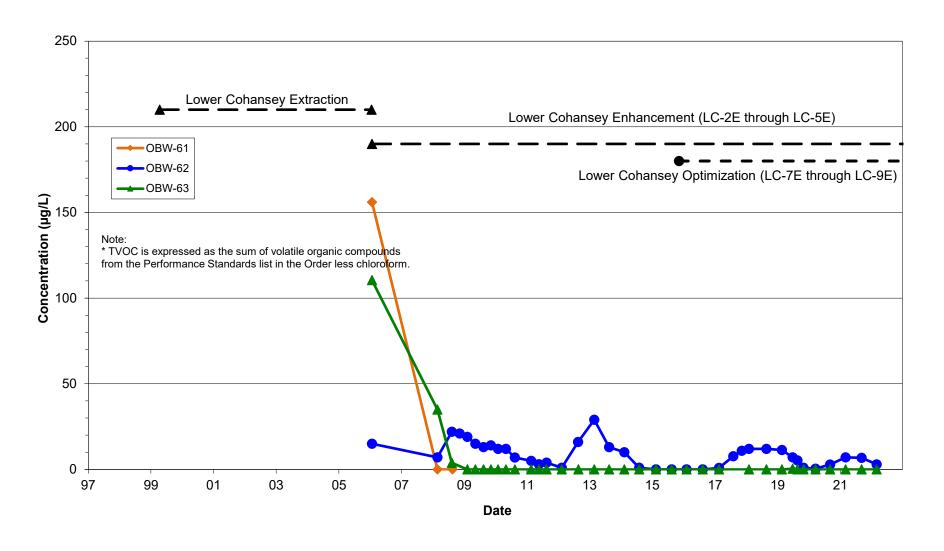
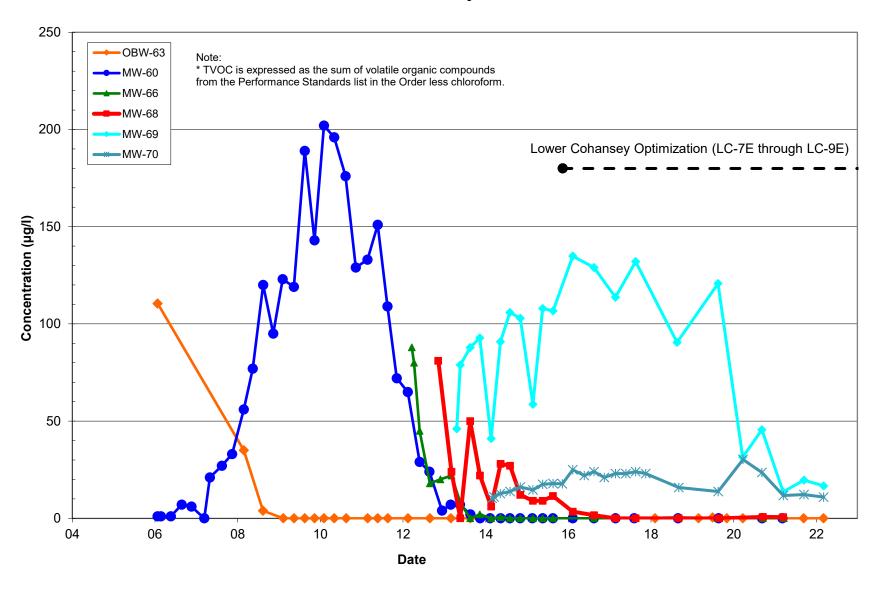


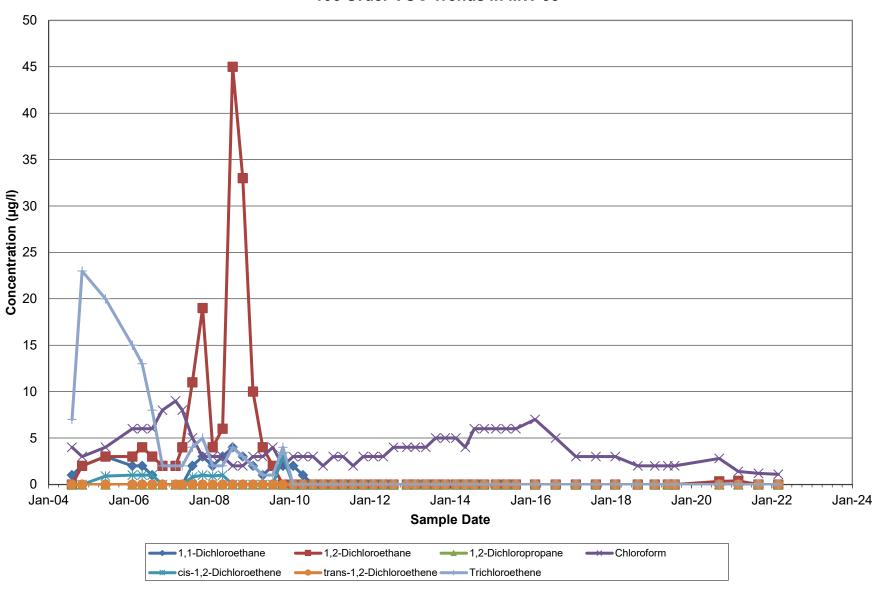
FIGURE 3-21
TVOC\* Trends in Select LCDP Wells
D'Imperio Property Site
Lower Cohansey Formation

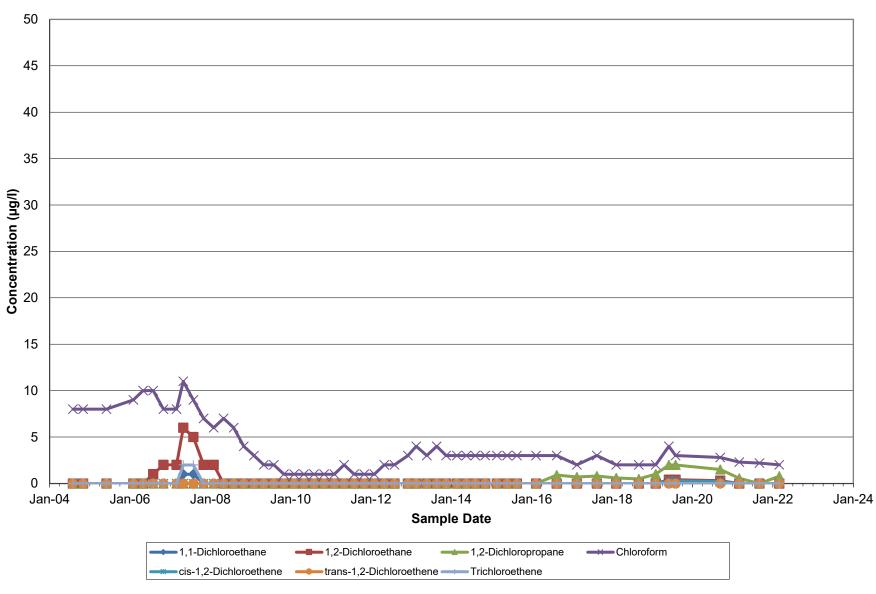


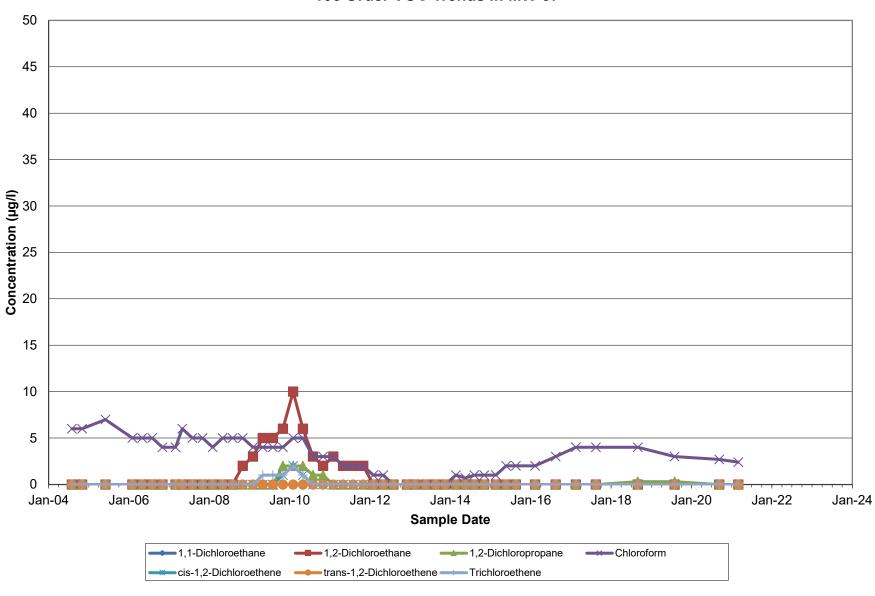
## **ATTACHMENT 9**

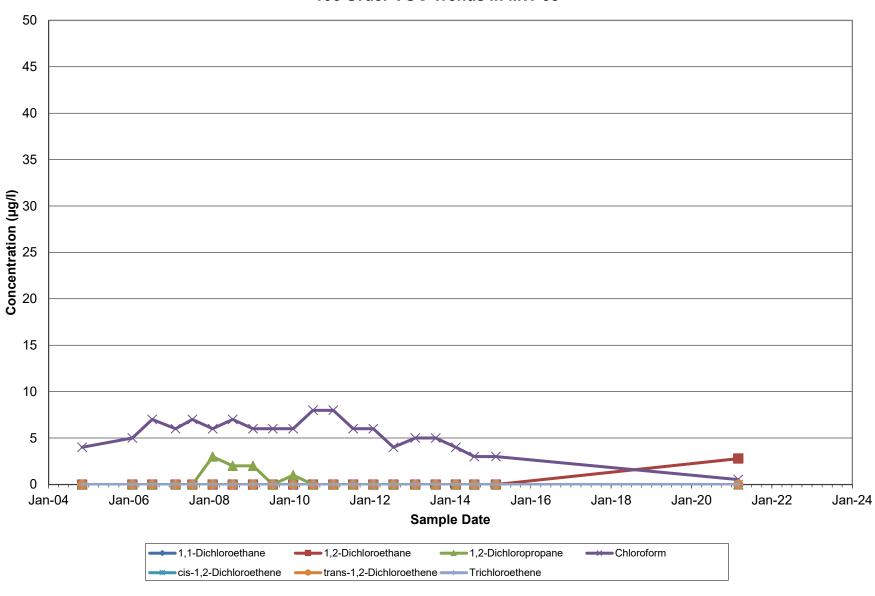
Lower Cohansey Main Plume TVOC Trends for Sentinel, Side-gradient and Observation Wells

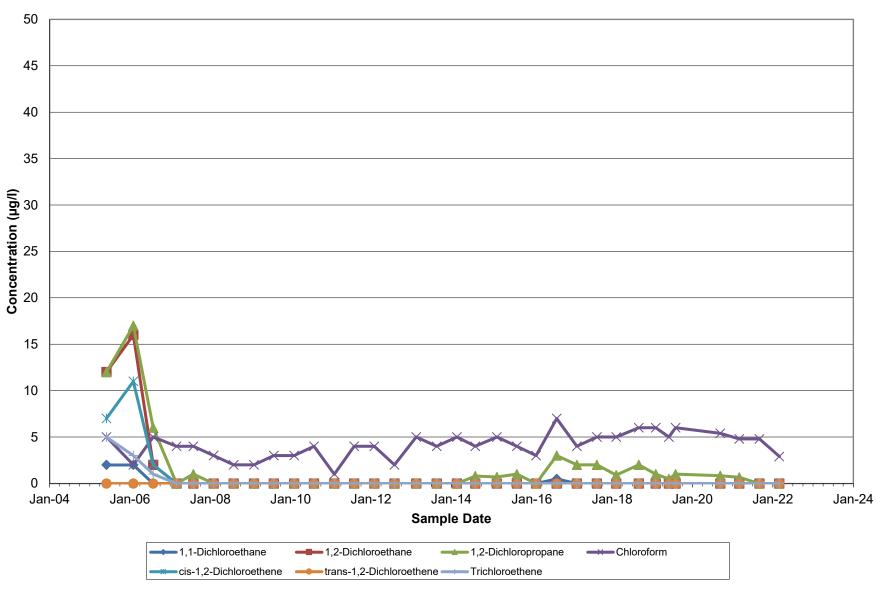
> D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report

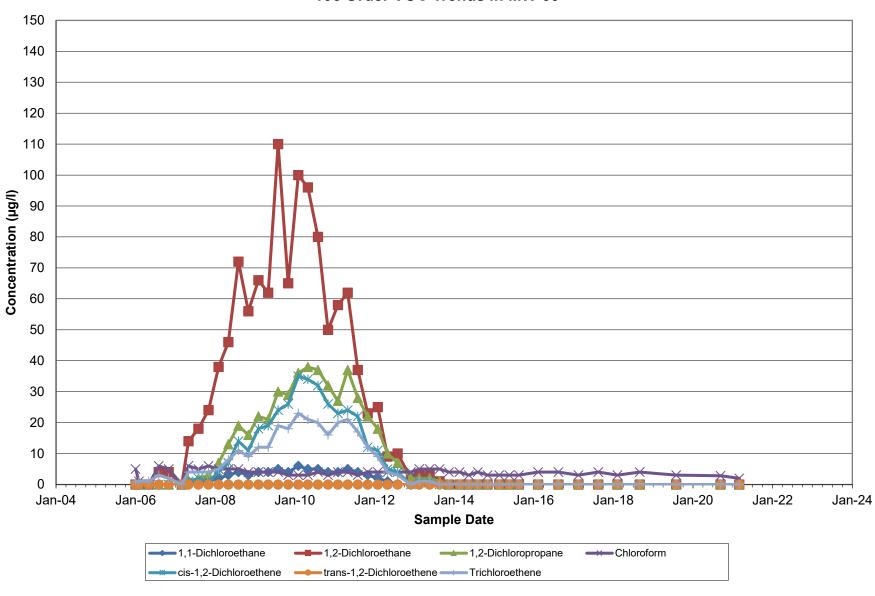


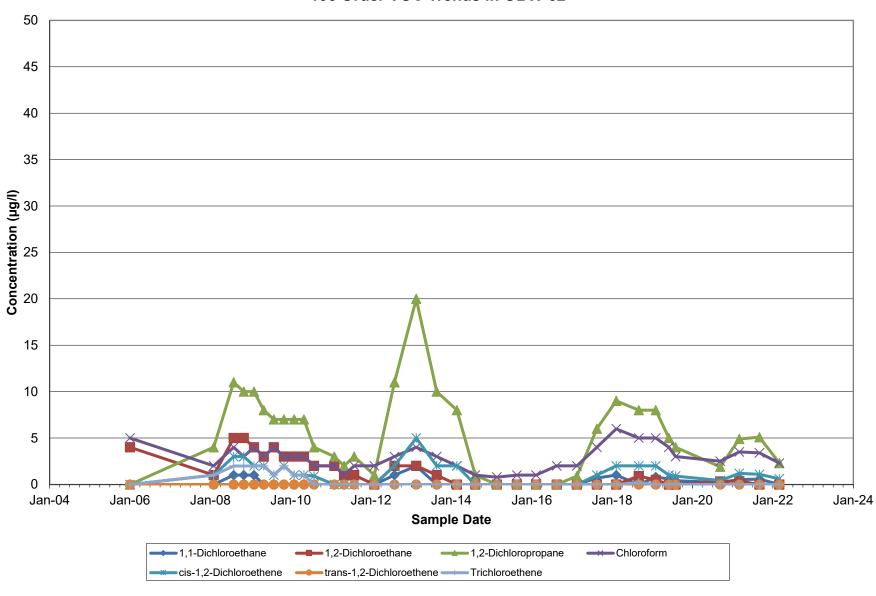


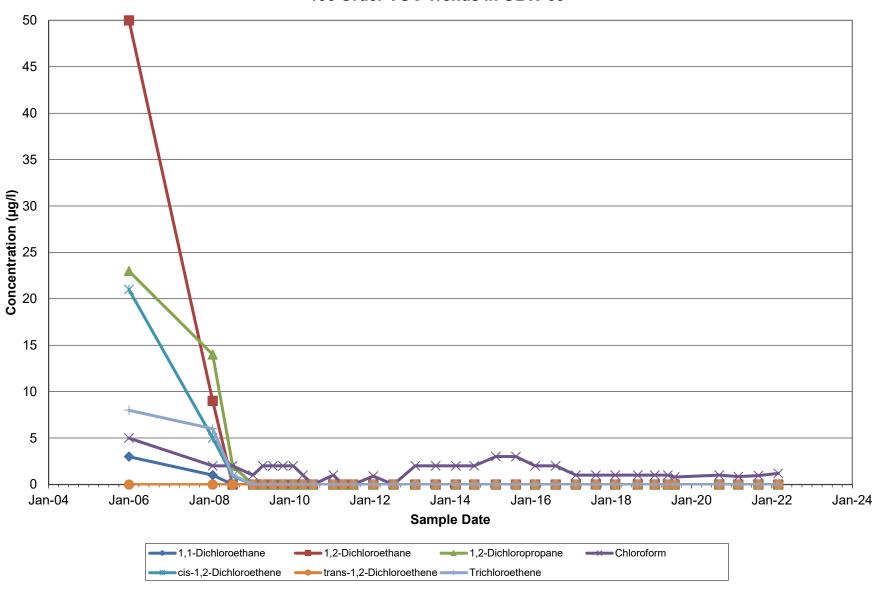












# **ATTACHMENT 10**

LCDP Monitoring Well Trends (2005 – 2022)

D'Imperio Property Site Semi-Annual (1H-2022) Groundwater Sampling Report

Figure 3-5
Time-Series Graph of Selected LCDP Well Data

